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Farm Department.

Conducted by J. H. Brown, who lives on his farm at Climax, Mich., which is conducted as the Michigan Farmer Experiment Farm. All correspondence for this department should be sent to Climax, Mich.

THE EDITOR'S FARM NOTES.

A FEW SCATTERED NOTIONS ON FARMING.

I have a few scattered notions on farming that I have picked up in the past forty years, and my mistakes are not all cured yet.

As to your idea of keeping farm accounts and farm records, some fifteen years ago I bought quite a large book, one that will last a farmer ten years, fixed so that you have a plan of your farm and fields, giving debts and credits to everything on the farm. It was a "sure thing;" you could know how much you earned and how much you spent.

Well, I run it one year. It lays by now, with some little vexation. When the wife sold her butter and eggs I would ask, "How much for the butter, to-day? How many pounds? How much did you spend, and what did you buy?"

"Well," said she, "it's none of your business. I ain't going to tell you everything I buy, and just what it cost. Suppose you put down every glass of beer that you buy, etc." She knew that I was one of those fellows that was going to eat and drink just what he enjoyed, so long as he paid for it; and that was his business.

You see if you keep account of everything, you will want a private secretary, and he would have to be a pretty good natured fellow, if he kept on the right side of the women.

Of course my memory is getting short, and I have to mark down "right away" things about my stock, etc., and let circumstances tell me if I am losing or gaining.

I think very much as Mr. Cowdrey does, that a farmer and his boys need to have eyes to see beyond the point of their noses; a head that is always thinking, and a pair of hands that are always ready and willing to work. Then they will "get there" about as soon as the next one.

We read a great deal of old stuff "fried over," about our farming, and some new fads that are "all the go" for a while, and I have learned not to trust them all. I have no money to burn on fancy stock.

A thoughtful man's own experience is his best teacher, rather than following in the footsteps of his neighbor, because our farms and circumstances cannot always be alike.

I cannot see any profit in your having your corn fodder shredded, paying five dollars per day, when you can buy the best hay for five and six dollars per ton. It takes four hands and three teams to run a shredder decently. Like the geared windmills, they may be all right on large stock farms. I also think The Michigan Farmer does not want to be all a big man's paper. It's the labor of the poor man that supports the wealthy.

Some of friend Hyder's "scattered notions" are right to the point. We remember seeing just such a "farm account book" when a little boy. It was sold by an "agent," who showed how he loved the "dear farmer" by hanging on to one like a leech until he sold him a copy at a "long" price.

We have since often wondered if not more than one farmer (or his wife) was sent to an insane asylum after vainly trying to properly fill all the vacant and checkered spaces in one of these account books for a year or two. We would never undertake to "keep" such a book as that except by filing away in a pigeonhole or using as a scrap book.

This business of "frying over," or (more properly) "warming up," very largely prevails throughout the material world. We can't get along without it. There is nothing new going on except "semi-occasionally," and even then it is merely ripped a little, or cut up and made over.

THE WARMING OVER BUSINESS.

During the coming season we shall, nearly every one of us, "farm it" just as we did last year, and the suggestions and articles from writers in the various farm journals will not materially vary from the tenor of what was published last year.

The doctors will treat their patients (or victims) under the same methods as last season (with an occasional exception), using the same ingredients in their doses, possibly charging a little more for each dose, visit or treatment, now that prosperity is "on the gain."

The preachers will use their old sermons over again, turning their barrels upside down, and taking out from the opposite ends thereof. We farmers, who "write for the papers," will rewrite of what we wrote the year before, and, so far as possible, try to practice what we preach—at least we will expect the other fellow to do so.

NOTHING NEW UNDER THE SUN.

There is nothing new in what friend Hyder writes, and though it is old matter "warmed over," as are our various notes, we hope he will long continue the warming over process, and tender The Farmer a liberal portion thereof. The world moves (in the same old orbit it did one year ago to-day), and we must move with it. This iteration and reiteration of well known facts, fads or fancies, proved or disproved, must go on until the end of time.

It is no use to "kick against the pricks," so let us put our shoulder to the wheel and work together for our advancement as a people—just as we did last year, with a slight improvement in our methods, as an accompaniment.

WHAT TO DO WITH CORN STOVER.

As to the shredded fodder, and whether it pays or not, much depends on conditions. It certainly pays the dairyman to cut or shred his corn stover before feeding it out. On the general purpose farm, where much corn is grown, and few cows are kept, we doubt its being profitable to either cut or shred.

Even though we were keeping but a few cows, we should prefer to have our corn stover cut, even if for no other purpose than ease in handling

when feeding and in hauling out and spreading the manure.

COPYING LETTERS.

Your suggestion in issue of January 8th, for farmers to copy their letters is worthy of more than passing notice. Not only business letters, but letters of all kinds should be copied.

I use a letter book and ink manufactured for copying without press or water. It is to my mind the most convenient and economical.

About one dollar and fifty cents will fit you out with a 500-leaf book, indexed, and ink enough to last a long time. No cumbersome press required and you do not have to leave your desk.

You can write as many letters as you wish, placing them as fast as written in the book, and when done commence at the first, fold and mail until finished. Have used copying books of this kind for fifteen years, and like them as well as when I first used them.

Lenawee Co., Mich. UNCLE DUDLEY.

This device is a good one, and the manufacturers should advertise in this paper.

There is another copying book we used some years ago. The book had a limp cover. The letters were inserted the same as when a press was used, then, by means of a round stick attached to the back of the book, the book was rolled up tightly in the hands. Enough pressure was then exerted to secure a very fair copy.

CONCERNING GRAIN TESTERS.

I would like to ask the opinion of The Michigan Farmer concerning the so-called testers, or weighing machines used by many of the grain buyers in this State. I have always looked upon the contrivance with suspicion.

In conversation with a gentleman who is a farmer, living in Ohio, I was told that the farmers of that State, having become satisfied that they were being mulcted from one to three pounds per bushel by the use of these testers, made such a vigorous kick that the last legislature passed a law prohibiting their use in the state of Ohio. Is that statement true?

If it is, ought not the farmers of Michigan to demand similar legislation for this State?

In many places, at the present time, the farmer drives to the elevator with a load of grain, the buyer dips in his little "brass bucket," and tells the farmer his grain shrinks so many pounds per bushel; and that is all the farmer knows, or can know about it.

I would rather take a less price per bushel straight, than to be paid a higher price and then be docked from one to ten pounds per bushel to make up the alleged shrinkage.

Some farmers in this part of the State will not sell, if they can avoid it, to any buyer who does, as one man termed it, a "brass bucket shop" business. What do our brother farmers think about it?

Ingham Co., Mich. EDGAR A. SWEET.
(These grain testers should be of government standard gauge, according to the Winchester bushel of 2.150.4

cubic inches. We also should like to hear from brother farmers concerning their experience with this little bucket in the hands of wheat buyers.—Ed.)

FODDER AND BUSHEL CRATES.

The editor tells about wasting so much corn fodder by husking when it is so dry.

If he will take his wagon and put two or three barrels on, fill them with water, and in the morning drive to his corn field and pour two pails of water on the top of each shock, as much as he will husk for the day, he will find it will be much nicer for the hands and save his fodder.

Now, about the using of bushel crates. I would not be without them for twice what they cost me.

I distribute them at the shocks, husk the corn and put it right into the crates. I sort the corn as we husk it; have one crate at each end of the shock, and then I take the crates and pile them up, six in a place, three on the ground and three on top of these.

I then put a bundle of stalks over them, and the corn is always dry and ready to draw any time.

You can stow away potatoes and apples in the cellar in the crates also. Ionia Co., Mich. T. R. DENSMORE.

(When one man is husking alone, these crates could be well utilized in the way you suggest. But if two or three were at the work, and the corn not hauled to the crib as fast as husked, it would take a large number of bushel crates to supply the demand.)

We used to husk, two of us together, taking the team and wagon into the field when pleasant, and hauled the corn to the crib each day.

We sorted out the seed ears, and then left the culled corn on the ground to pick up by itself. A few baskets or crates would be sufficient for this method of working.

But when two or three men were husking last fall, we could not find crates enough to manage matters as you suggest. In fact, there would be 250 or 400 bushels of corn husked and placed in covered piles before a bushel was hauled to the crib.

As to hauling water and sprinkling each shock, we have tried the scheme, and it works very well. It, however, makes considerable extra work, and when two or three men are husking it takes much time and water.—Ed.)

HAY SLINGS ARE BEST.

In the December 11 issue of the Farmer, I see R. O. Logan, of Branch county, wants to hear from some brother farmers who have used hay slings or carriers. As I have used them for the past seven years on a 300-acre farm, I can give him a few thoughts on the sling business.

I would use a wood track in preference to steel; a 4x4 track made out

of good straight grain white oak is superior to a steel one.

Two or three slings are sufficient to take off any load of anything that can be loaded on to a hay rack. They will unload hay bundles, cornstalks, bean straw; anything can be handled with three drafts, no matter how big the load.

The kind that I use is a three-rope sling, and I think they are way ahead of anything there is on the market. They are as much ahead of a horse fork as a horse fork is ahead of pitching off by hand.

Clinton Co., Mich. C. E. BILLS.
(Nearly every farmer who uses these slings speaks in the highest terms of their utility, ease of handling and their clean work in taking up hay, wheat bundles and corn stover.—Ed.)

For the Michigan Farmer. HOW TO HANDLE MANURE ON THE FARM.

No doubt but what enough has already been said (had it all been heeded) on the above subject. But as long as farmers farm for the best of results, we will not ignore so important a subject as manufacturing and applying common barnyard manure, on and to their farms.

The past few years have demonstrated the full value of manure when properly applied in this section, and farmers are beginning to awaken to the new era of agriculture which has for so many years awaited them.

The time is speedily approaching when one acre in Michigan will produce the amount required of two acres to-day. Underground ditches are going to play no small part in this contest, for we already see our best crops growing on such land, and I believe that it has been proven that such ditching is nothing but one way of enriching the soil.

A rule long ago established by our forefathers was to apply coarse manure, such as straw and corn stalks, to all wet places, then plow under for the purpose of drawing from the surface, moisture which was injurious to the coming crop.

Manure of any kind (except commercial), has a tendency to loosen the soil, and when enough has been applied the land becomes like new, and crops thrive in an excessively wet season nearly as well as when we have an average amount of rainfall.

But one must use precaution as to the amount to use on an acre, for, where one is careless, too much can easily be applied, and the result in most cases causes the crops to lodge or grow entirely to stalks, producing no grain whatever.

It is a study to acquire that knowledge of a farm so we can crop each field by regulation and draw the manure when we have the most spare time, and where it is going to do the greatest amount of good.

Seldom do we see a field evenly covered with manure, but it is no uncommon thing when driving through the country to see some portion of a field covered with piles, probably thirty or forty loads per acre, standing just as thrown or "dumped" from the wagon. It matters not though if it is allowed to stand in piles where such a quantity per acre has been "dumped," for the plant food will be found sufficient even if one-half or more of the nutritive qualities have been wasted.

Such work is far from being right, and I hope if any of The Michigan Farmer readers have made a practice of so doing they will reverse their method and try covering the field evenly with ten or twelve loads to the acre, before criticising me too harshly for intruding on their rights.

Certainly it does require some skill to place a specified amount to the acre where one is doing the work with a fork, as the most of us do. But with a manure wagon the work is a great deal easier and the manure more evenly spread.

I do not believe it is policy for the average farmer to tie up money in a manure wagon. Better take a little more time when doing the work and save the extra expense. To avoid getting too much on part of the field, and not enough on the balance, calculate on the number of loads you will have. Then measure off an acre as nearly as can be done by pacing. Divide this and cover half at a time.

If, on the first half the required amount of manure falls short, or runs over, you can judge better of the distance to be between heaps and probably will have no trouble thereafter.

Always begin manuring on the poor-

er half, then if the manure is exhausted before the field is covered, you will be better satisfied than if you had begun on the better part and lacked a little of having enough manure to complete the field.

Some farmers believe in drawing the manure direct from the stable to the field, and I am not going to condemn the plan, although we are not practicing it on our farm this winter.

Two years ago when we tried it the winter was mild and ground soft most of the time. This tramping around on the fields when the horses mire in half way to their knees does more damage in my estimation than the actual cost of hiring the work done when spring comes or the ground becomes settled.

This winter, so far, has been excellent to do such work, for the ground has been frozen hard enough to hold up the team, wagon or sleigh, and a sleigh or sled could have been used, for the ground has been covered with snow the greater part of the fall and winter.

We like to let our manure remain in the yards till after harvest, then draw on to our wheat field and plow under. This not only helps to secure a good wheat crop, but a first-class catch of clover, which is hard to get any other way.

One trouble in doing this way we have to wade through the rotten manure which, in a wet season, is far from being pleasant. I sometimes think there is a certain waste by letting it remain in the yards until mid-summer, but our subsoil is of such hard clay that it holds water like a cistern, and no great amount of liquid manure can leach through this subsoil.

I have been told by good authority, even if this manure does settle down into the subsoil (after it has been hauled to the field), when the water is soaking down into the ground that it will come back again when the dry season comes on and when the moisture is working back to the surface. This, I believe to be true, and is one reason why I always plow our manure under instead of applying to the surface.

Hillsdale Co. E. F. BROWN.
(This manure question is stirring up considerable discussion. Let it come.—Ed.)

For The Michigan Farmer. THE POOR MAN'S MANURE.

I have been a reader of The Farmer for a good many years. My father took the paper years before I left home, and I have taken it even since I "went by myself."

I recently read an article entitled "What, When and How to Apply Fertilizers." Now, my mode of farming will differ much from a good many. In the first place I have only a small place of 115 acres, and have to figure close to make the income larger than the outgo. And then I sometimes fail.

Now commercial fertilizers are expensive, and we, as farmers, have got to make the expenses as small as possible. If a man will keep more stock and raise less wheat and beans, he can keep up the fertility of his soil with barnyard manure.

When we are growing beef or mutton, selling butter, milk, or wool, and feeding stuff raised on the farm, we are building up our farms, instead of running them down, with less hard work, both out doors and in the house, and with less expense than when selling wheat and beans and buying commercial fertilizers.

I think a man ought to feed everything raised on the farm that he can. I have seen many men sell their straw, which is a mistake.

I like to draw and spread manure as fast as it is made. I do not like to leave it in piles, but think it better to spread from the wagon or sleigh.

I like to draw on the next year's corn ground in early winter, as oat ground, which if not already plowed, wants plowing early, and the manure helps to keep it cold and wet. But the grass comes up through the manure on corn ground, and makes a good heavy coating to plow under.

I see a good many talk of sowing corn ground to wheat, which is perhaps a good plan. But I would like to ask where they will raise their oats? I always sow my corn stubble to oats, break a sod for corn, then sow the oat stubble to wheat to seed after, which is about all of the wheat raised.

I think hay, corn and oats ought to be the main crops, with cattle, sheep and hogs, with everything fed up except wheat, and there will be

a little left each year on the credit side.

I think corn stalks are excellent feed for store sheep and milch cows, with a little hay and what straw they will eat willingly, not being starved to it. I think a sheep ought to have one feed of wheat straw each day.

Livingston Co., Mich. A SUBSCRIBER.
(Your plan is one of the very best, and your farm, under such treatment, will increase in fertility if you keep up the practice you recommend.)

You say this is your first attempt to write for The Farmer, but we hope you will "come again" with some of your farm experience along other lines.—Ed.)

HALF-WAY FARM WORK.

Much of our failure is due to lack of thorough work. A few years ago I came into the possession of a piece of land containing fifty acres. The former owner had bought the land some twenty years prior to my purchasing it, giving a mortgage. I have heard the man who held the mortgage say that he had received enough money in payment of interest to pay for the farm.

I do not think the "owner" ever paid a cent toward the principal. At any rate the mortgagee foreclosed, and had the farm on his hands, and I did not wonder that the man who had bought the farm could not, or did not pay for it; for of all the slipshod farming I ever saw his was the worst.

The land was naturally somewhat stony, and instead of drawing the stone off, the man plowed over them year after year, and decade after decade. There were great flat stones right on top of the ground, as much as a yard square. These could be easily moved, as I have since practically demonstrated.

There were also many old hemlock stumps in the land which he had under the plow. There were other sources of trouble. But the worst of it was, that when he did plow a piece that was free from stones or stumps he did not more than half do it. The result was that although the land was naturally strong and capable of producing good crops, this man never made a go of it, and finally let the place go back.

Since coming into possession of the farm I have picked up the stones over which my predecessor plowed and mowed so many years, and pulled the stumps, so that I now have as pretty a field of it as one could imagine.

This summer, passing along the road to the county fair, I saw fields of so-called corn, which were so swamped with weeds that one could barely trace the rows at a little distance. Lack of thoroughness in culture was at the bottom of this failure. Just over the fence was a piece owned by a thoroughgoing farmer, which was clean and well-earned. Times were hard with the slipshod farmer, as he himself told me; they always will be. His entire farm and buildings looked as if a blight had struck them.

What can be done for such farmers? They rarely subscribe for farm papers, and if they do they will not believe the articles they read are true. They never attend any farmers' meetings. If they go to the fairs you will find them around the side-shows or on the merry-go-round.

The only hope for such men lies with the boys. Boys are ambitious. They like to appear as well and to do as well as their neighbors. One really practical and thoroughgoing farmer in a neighborhood will do more toward awakening an interest among those about him than can be done in any other way. People study his methods, and gradually come to try to do as he does and the result is a steady rising toward better things. I have great hopes from the young men of this country.

E. L. VINCENT.
(Just such plowing and handling over and over of large stones may be seen every season on some farms in almost every neighborhood. It is a practice that keeps company with another plan of leaving the farm tools out of doors the whole year round.—Ed.)

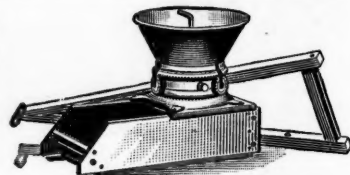
Boils and Sores

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PURE-BLOODED STOCK.

Something more than plenty of money is needed to make a successful breeder. Money is useful to secure the best material to start with, but it is not so important as skill and knowledge of the principles of breeding, without which money is likely to vanish like snow or ice on a summer's day. Lack of knowledge when combined with plenty of money has sometimes been an injury to stock improvement. It has enabled men to secure what ought to be the basis of improvement, and turn it to something exactly the reverse. All our best breeds were, in the first place, originated by men who had only the accidental best of common stock to work upon and improve. Seeing clearly the marks which distinguished this best stock it was inbred until those characteristics were impressed upon successive generations of progeny with some degree of certainty. It was thus that the earliest distinct breeds were formed.

Skill in feeding is also important. So long as stock was left to nature's cares, sometimes pampered, and more often nearly starved or pinched by cold, the only natural improvement was towards greater hardiness. The law of natural selection, weeded out those unfitted for this rough contest for mere existence. It is part of the business of the feeder to reverse natural conditions by at all times providing plenty of suitable food. Thus relieved from sudden changes that threatened existence, animals can be improved in other respects. It is very analogous to the kind of improvement that man makes in emerging from savagery to civilization.

Here in England wild native cattle were all long-horned. The whole contest, for existence, gave to the longest horned animal, other things being equal, an enormous advantage, so he destroyed his rival and perpetuated the characteristics that had given him power to perpetuate the breed. While some earlier breeders bred off or reduced the horns, others paid more regard to the milk and butter producing capacities of their herds. They not only fed better without fattening, but by regular and careful milking, and watching the effects of various foods on milk production, changing when necessary to produce the best results.

But it is a significant fact that climate and the kind of feed, even with the best of care, are prepotent moulders of characteristics. No great milking breed has yet been developed except in moist, warm climates, with more or less succulent food through the whole year. As instances of this we may mention the Channel Islands breeds, the Jersey and Guernsey, and also the Holstein; and if their excellence is to be perpetuated, some succulent food of good value must be provided.

The character of the progeny is influenced largely by the characteristics of the male, and its condition at the time of mating, and by the condition and feeding of the dam while carrying her young. Neither of these facts is as well understood as they should be. To suppose that a half-starved cow, or a cow made over-fat by too large amounts of fattening food can produce a good milking progeny, indicates woeful ignorance of the first principles of breeding. It is in such ways as these that good stock deteriorates in careless and unskillful hands. But all the more this enhances the profits of the breeder who thoroughly understands his business. It is one in which skill counts far more than money. Indeed the money without the skill is pretty sure to be wasted.

Just a few words on pure stock or pedigree stock, concerning which there is much misapprehension. So much has been said and written about the desirability of securing pure blood and with so little qualifications that the majority think that if they only secure pure blood that is all that is necessary to be done to reap much larger rewards than from ordinary stock. They do not seem to realize that what brought pure bloods to their present state of excellence has been great care of individual animals, and rejection and selection of those which are to aid in perpetuating the breed. Unless the same care be continually observed this excellence will surely degenerate. It is an axiom that material bodies go faster down hill than up, unless some kind of break be applied.

So with pure blooded animals. Even to keep them where they are, effort in an uphill direction must be made, and to elevate them still higher, greater power must be brought into use, and that power is better care and wiser selection of those from which to breed.

As a person can lose his character by one wrong step, so can pure blood be ruined. Pedigree stock is all very well in its way, but a great many pedigree animals at present in use ought, undoubtedly, never to have been allowed to breed. A friend of mine told me an instance of this sort the other day. An advertisement appeared in a local paper to the effect that Mr. So-and-So would allow his fine young pedigree bull to serve his neighbor's cows at 2s 6d per head. Being near at hand he thought he would go over and see the animal. The pedigree he found was a very good one, but the animal himself was just what he expected, a long, slim, high up on the legs, and built as if he were meant to jump five-barred gates. He also saw some of his calves, and they were patterned just like the bull. No doubt this animal will distribute his blood well in the vicinity and succeed in destroying the usefulness of all the dairies with which he has much to do. "Blood" without much care and wise selection does not always tell in the right direction. And herein lies a greater danger in having too much faith in the value of pedigrees of domestic animals of all species. Pedigree has its value, but performance is better. Pedigree and performance for the last three generations of the animals are better than pedigree alone, be it as long as the tail of a kite.

S. H.

"FAKING" AMERICAN HAMS.

From Our Special English Correspondent.

It is a very long time since a case attracted more general attention than that of a prosecution at the instance of the Bacon Curers' Association of Great Britain and Ireland, against the Junior Army and Navy Stores Limited, of London. The force of the evidence may be gauged from the fact that there was practically no defense, and the magistrate fined the Stores the maximum penalty of £20 (\$100) with £31 10s costs; the foreman of the department which sold the hams £10; the manager and buyer, who knew where the hams came from, also £10; and, finally, the shopman who, acting on the instructions of the principals sold the American hams as Irish, £2; together with the costs in every case. Altogether, this conviction cost those implicated £73 16s—a rather dear job to the limited company. As one of our home agricultural papers to which I contribute regularly, gave a good general outline of the charges, I quote from that paper briefly:

The charge was threefold, viz.—(1) Selling certain goods with a false trade description; (2) applying to certain goods a false trade description; and (3) causing such false trade description to be applied. The salesman of the provision department, the foreman of that department, and its manager and buyer were included in the summons. The inspector of the Bacon Curers' Association, on 7th September last, entered the stores and asked for a small English ham. He was served with an Irish ham, charged at 10½d per lb. He got an invoice, and at his request the word "Irish" was inserted as the trade description of the ham. It was proved that the ham was not Irish but American, and its legitimate trade price, sold under its own colors, was 8½d per lb. The most important part of the evidence came out on the second hearing, when witnesses were examined who had formerly been in the service of the stores, and proved that the "faking" up of American hams, so as to look like Irish, Yorkshire, or Wiltshire, was a regular practice. When a customer asked for Wilts, York, or Irish hams these shopmen were instructed to present the Americans most like the real articles and sell them as such. What these witnesses said throws a lurid gleam on the manufacture of home produce in the cellars of imposing stores in the West End of London. These particular hams were branded "B. C.," which was alleged to mean "Breakfast Cured," and others were unbranded. All of them were American, and came to the stores in Canadian boxes. The "B. C." and unbranded were sold as Irish, the darker colored small hams as Wiltshire. The latter were sold at 1s per lb., the legitimate retail price of American hams being 8½d. The "faking" of the alleged Wiltshire consisted in oiling the Americans, rubbing some meal over them, and placing them on the counter

with a "Finest Wiltshire" label on them.

An assistant stated that he had on one occasion worked fifteen hours' overtime in the stores during one week, his occupation at the time being the manufacture of Irish butter. Another witness testified that he had been three and a half years in the stores, and during that time they stocked American hams branded "B. C.," which were sold as Irish hams, the price being 10½d, 1s, and at Christmas 1s 2d per lb. The magistrate's summing-up was, of course, dead against the accused. He emphasized the fact that the defendants were themselves eligible witnesses to swear on their oath, if they could, that what had been testified was untrue, but not a witness had been put in the box, and therefore the case was practically undefended. He regarded the prosecuting association as a very natural combination of home producers who had to compete against the whole world in legitimate trade, but when they had also to compete against people who traded in the particular way adopted by the defendants, they had every reason to be thankful they had an inspector.

While recognizing the unsavory details, which are strangely at variance even with a common standard of morality, I think that every true blooded American farmer will be ready to say—served them right. But I would here take this opportunity of saying a word in praise of the much liked and appreciated American hams by the rank and file of our large towns and cities in England. There is hardly a single village, ne'er tell of a town, but what some storekeeper does not sell either a long cut or a short cut American. Here in Leeds or Bradford we can buy the very best at 13c a lb., and they need no "faking" or "doctoring" to improve their eatableness. I may say this, that if it was not for your hog raisers we should have to pay at least double for a bit of ham, and our thousands of working mill operatives and artisans generally would be hard put to it to get a bit of "home fed" ham. What your farmers have to do is simply to keep up the quality, for the English market is assured to them, and always will be, for all kinds of bread-stuffs generally.

York.

AGRICOLA.

STOCK NOTES.

U. S. Consul Flemming, at Edinburgh, Scotland, reports that efforts are being made in Scotland looking to the adoption of some means to check the sale of foreign meats. It is asserted that American meats are being sold as Scotch and that thirty people are thereby induced to buy it at from two to three cents per pound more than if sold under its true name.

Prof. Thomas Shaw is championing the cause of the grade Shorthorn cow in a very able manner in his writings. In a recent article he says that "the Shorthorn grade cow, more than any single production of the farm, helped to make our nation great; and the Shorthorn grade cow in the future, more than any other single production of the farm, will help to make our nation greater."

Secretary Houghton, of the Holstein-Friesian Association, requests us to announce that the period set by the Holstein-Friesian Association of America, for recording animals over one year of age at same fee as for animals under one year of age, extends to the 16th of March, 1898, and does not cease January 1, 1898, as many persons have evidently supposed. He says many people are remitting double fees when but one is necessary. The fees now stand as follows: Non-members, cows, \$2; bulls, \$5. For members, cows, \$1; bulls, \$3. Transfers, non-members, 50 cents; members, 25 cents.

At the recent Smithfield show the best Devon heifer, 1,051 days old, weighed 1,412 lbs., a daily gain of 1.34 lbs. The best Hereford heifer (over 1,000 days), 1,051 days old, weighed 1,627 lbs., a daily gain of 1.54 lbs. The best Shorthorn, 1,085 days old, weighed 1,932 lbs., a daily gain of 1.78 lbs. The best Red Polled (Mr. J. Y. Colman's End), 1,022 days old, weighed 1,704 lbs., a daily gain of 1.66 lbs. The best Polled Angus, 1,070 days old, weighed 1,759 lbs., a daily gain of 1.64 lbs. The best Galloway, 1,030 days old, weighed 1,586 lbs., a daily gain of 1.53 lbs.

The question was recently asked of the treasury department of the United States, whether cattle taken to Canada for exhibition purposes might be returned to the United States without being subjected to quarantine. In reply, Assistant Secretary W. B. Howell stated, under advice of the Secretary of

Agriculture, that such cattle may be returned without being subjected to the quarantine of fifteen days prescribed by the department's circular No. 15, provided the owner produces, on re-impatriation, a certificate from a Canadian official veterinarian that the cattle have not been exposed to any contagious disease except tuberculosis and actinomycosis while in Canada, and that the animals are healthy upon physical examination. Moreover, the tuberculin test and inspection at the port of entry may be omitted in such cases.

Wm. Fishbeck & Son, of Howell, Livingston Co., report the following recent sales from their herd of Shorthorns: To E. H. Doane, Shepherd, Mich., bull calf, Acklam Fletcher. To A. M. White, Brockport, New York, bull calf, Prosperity. To Frank Markie, Reeman, Mich., bull calf, Lord Acklam 4th. To Frank Bartlett, Dryden, Mich., bull calf, Lord Acklam 5th. To H. L. Brown, Albion, Mich., yearling heifer, Lady Victoria 4th, and heifer calf Lady Acklam 5th. To C. L. Gordon, Fowlerville, Mich., bull calf, Lord Acklam 6th. To J. W. Burgess & Son, Hartland, Mich., 3-year-old cow, Baroness J and 4-year-old cow, Baroness F. To John Schmidt Jr., Reed City, Mich., bull calf, Lord Acklam 3d. All the above will be recorded in Vol. 42 except Baroness F. who is recorded in Vol. 41. There is a great demand for Shorthorns this year, especially bulls.

Referring to the recent formation of the Tamworth Record Association in the city of Flint, the Wolverine Citizen says: "The large pork packers, the city press and the foreign demand are all crying for lean or bacon pork, and Armour and Swift have recently been buying large numbers of Canadian swine in order to supply the demand for lean bacon which some of the established fat breeds do not furnish." The Citizen is right in saying there is a general demand for lean pork, but it has been met so well that prime heavy hogs are now selling on a level with light bacon hogs. We refer to the Chicago, Detroit and Buffalo market in corroboration of this statement. There can be too much of a good thing. The other statement, that "Armour and Swift have been buying large numbers of Canadian swine in order to supply the demand for lean bacon," is true to the extent that Mr. Armour made a purchase of one lot of selected hogs to test their value for this purpose as compared with American hogs. The purchase has not been repeated so far as we can learn, and we have watched the Canadian journals carefully to see if it was. Per contra, we note purchases of American hogs every week by Canadian packers and bacon curers. Last week several Canadian buyers were in the Chicago market, and we note one party took six double decks of "singers" in one lot. For every hog purchased in Canada for Chicago there are a hundred purchased in Chicago for Canada.

Lactic acid in the blood causes rheumatism. Hood's Sarsaparilla purifies the blood and cures it.

PUBLIC SALE 25 head Shorthorn Cattle, at my farm, Wednesday, April 13th. Will sell from 5 to 10 grand good young bulls ready for service, and about 15 females. Catalogue ready March 1st. I. M. SOUTHWORTH, Allen, Mich.

FOR SALE. 20 young thoroughbred unregistered Shrop. ewes; one thoroughbred Red Poll bull FRANK H. LEMEN, Whitmore Lake, Mich.

FOR SALE—Farm, Horse and Ponies

I have got to sell my farm of 160 acres adjoining the city limits, thoroughly stumped and stoned, not a foot of waste land a bearing apple orchard of 185 trees, young peach orchard upwards of 225 trees, besides cherries and other small fruits. Two houses and fair barns, etc. Also my Standard Bred Stallion Elvas, No 23755. Mahogany bay, black points, 1,200 lbs, 5 years of age. Also 3 or 4 Shetland ponies. Cut this out as it will not appear again. Write E. D. HAWLEY, Stanton, Mich.

STOCK FARM FOR SALE.

One of the best farms in State of Michigan, containing 1,360 acres; 900 acres improved; good and ample buildings; six flowing wells and river; 8 miles from market in good county. Must be sold to close business of corporation. Is offered dirt cheap. Write us for full particulars.

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AUCTION SALES

January 22d the first of a series of sales of horses will be held on my farm at Pontiac, beginning at 1 p. m. The horses offered will consist of drafters, trotters, pacers, farm chunks and general purpose animals. The sale will be repeated on Saturday of every week until further notice. Terms, 3 per cent off for cash, or approved notes at 7 per cent per annum. At same time will offer a lot of choice breeding ewes.

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General Cow Drink on hand is cheap insurance. 50c. each; \$5.00 dozen. Circular free. MOORE BROS., Veterinarians, Albany, N. Y.

The Horse.

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AMERICAN HORSES IN BELGIUM.

In a review of the business in American horses in Antwerp during the past year, which we find in the *Drovers' Journal*, it says that the trade had improved very much in 1897. Two years ago only some hundred horses were imported, but this last year the number was about 7,000. The enormous increase is due to a large extent to the commanding position of Antwerp as a center from which all parts of the continent can be easily and quickly reached, and it is thought the trade will increase rather than decline the coming year.

A great many of the horses shipped to Antwerp go right through as if in transit to France, Germany or Switzerland. The other part is sold privately or by auction. Of that part one can reckon that about two-thirds are still sold to French, German or Swiss dealers that begin to come regularly to Antwerp at the arrival of each Phoenix Line steamer.

There are already at Antwerp four places where American horses are sold. The last built, and most frequented and preferred by shippers as well as buyers, because of its accommodations to show and stable the horses, are the American Stables, which have space for 210 horses, and a very large covered hall, allowing to show horses in any weather, as well under saddle and in harness as at halter. In this establishment took place about twenty auction sales, which proved very satisfactory to sellers and buyers. They were started at such terms that a buyer has as much guarantee in buying at auction as buying privately. This, as well as the quality offered for sale, made a success of these sales. This success was so large that the agricultural party of Belgium, that looked only with indifference to the American horse arrivals, soon awakened, and seeing in these repeated sales a great competitor for the Belgian horse breeder, they decided to hold meetings to protest against American horses being imported. The first meeting was held by "La Societe des Eleveurs Belges." They published in a report what the importations of American horses were two years ago and what they are now; what the quality of these horses was, and what it is now. They claimed that the American horses were taking away the German buyers from Belgian fairs; that American horses were sold as Belgian; that they were used for breeding what would in a short time destroy the good reputation of the Belgian breed, and many more claims. Amongst what was proposed to stop all this some proposed to brand all American horses on the leg; others proposed to brand them on the shoes; others to put a heavy duty on them, and at last they even proposed to ask the government to prohibit the importing of American horses entirely. The discussion, however, ended by another proposition, and that was to send to the United States a committee to study the breeding, see what is the number of horses that can be exported, what kind they are—in one word, to look after everything concerning the breeding and exporting of American horses; to Germany another committee to see what the Belgian breeders have to do to keep that market.

The second meeting was held by the "Societe Centrale d'Agriculture." At this meeting about the same things were repeated, and the sending of a committee to the United States and Germany confirmed. There they proposed also openly to ask the government to put a duty of 100 francs per head. However, knowing that Belgium could do nothing alone, they decided that the secretary of the society would write to all agricultural societies of England, France and Germany to expose the danger for the breeders of those countries by allowing the importation of American horses, and ask them to meet the "Societe Centrale d'Agriculture" in her views, and each in his country to ask the government to put duties on the American horses.

The reviewer says he does not believe these two meetings will injure the trade in American horses at present, but that it shows great care must be exercised that no reason for prohibitory legislation be given; and he concludes as follows:

What, as a general rule, shippers do not well enough understand, is what kind to ship, and if many have lost money it is mostly due to shipping twenty horses that do not suit the market with twenty that do. For chunks

and drafters of any size they should always try to ship horses most like the Belgian horses, and least possible like the Shire and Clydesdale horses. Horses with Roman noses or hair on the legs are unsalable here. One requires nice, small heads, short bodies close to the ground, especially heavy bones, and good feet and shoes. The age and color are not of great importance. However, horses of 3 to 7 years old, of any color except light grey or white, are preferred. They must all be kind, sound, good in harness, single and double. Well matched pairs sell very well.

In the light carriage or saddle horses and heavy coachers color has nothing to do, and those of 5 to 7 years old are preferred. All that one requires is a horse that shows himself well and has high actions, nice head, long neck, good back, with tail well attached. This class always sells well and quickly, if such horses have good action. Strong roadsters are also liked, and sometimes a good, strongly built trotting horse will meet good buyers. In this kind, as well as in the chunks and drafters, well matched pairs sell very well.

My conclusion of all this is that whenever a man ships the right kind to Belgium he will be sure to make money.

HORSE GOSSIP.

Harry B., 2:17½, a trotting gelding by Phil Rysdyk, recently shipped from Canada to England, brought \$1,000 at auction in Liverpool. He would not have brought over \$250 in this country.

Uncas, the last son of the great Lexington, died near Crescent, Mo., recently, aged 22 years. Astelle, the last daughter of Lexington, is still alive, aged 28 years. She is owned in Kentucky.

Chas. Woess, a native of Austria, has purchased the bay mare Nutshell, 2:15, by Bayonne Prince, dam Nutmeg by Nutbourne, at the reported price of \$2,650. The American trotter seems to be enjoying a great boom in Southern Europe.

Salvado, a colt which recently lowered the California record for a mile and a sixteenth, pulled up lame, the result of an enlarged tendon, and had to be thrown out of training. He may be all right by spring. This colt is by the great Salvator, who had a knack of breaking records himself.

Thomas Cross, of Bangor, this State, who imports and breeds Percheron, French Coach and French Draft horses, in a private note discussing the prospects for horses, says: "We are the only firm in the State that continued in the business—all the rest went out when the price of horses went down, but we increased our stock, and to-day have the finest selection we ever had. As you know, every State in the Union stopped raising horses, and European buyers have picked up all the good horses of merchantable age. I just ask, where are we to get our supply from? I think it is time the farmers of our State should once more engage in the business of raising horses. They should also start right. Too many small horses have been raised in the past. We should raise horses that have both size and style, and then we can command a good price."

At the meeting of the Pacific Coast Breeders' Association Adolph Spreckles introduced a resolution to abolish hobbles. It is said that Mr. Spreckles was the first man in California to introduce the straps, perhaps the first in the country. Early in the seventies he purchased Jennie, dam of Hulda 2:08½, and as she was mixed-gaited, he determined to make her trot. In those days the secrets of balancing trotters were unknown, and the young man cudgeled his brain to find some way by which he could overcome her uneven way of going, so he drew a sketch of a set of hobbles and had them made by a harness maker in Frisco, and after using them a while got his mare going smoothly. Then he discarded them and to-day they are ornamenting the harness room at his stock farm. It looks now as if hobbles were to be banished from tracks, as they certainly ought to be.

An eastern exchange says: At the coming congress of the National Trotting Association to be held at New York next month, an effort will be made to modernize trotting. A strong effort will be made to shorten races in one or two ways. Under the present rule, all horses which do not win a heat in five are ruled out. It is proposed to send to the barn all horses which do not win a heat in three. Another proposition is to reduce the distance to 50 yards. The latter rule

would make every heat a race, and would stop laying up heats, one of the most potent causes of fraud on the trotting turf. In this connection, there will be a proposition to prohibit book-making on heats. The most important questions will be the licensing of trainers and drivers. The system has worked well on the running turf, and it would be of far greater usefulness to the trotters, as it would sound the death-knell of the "ringing" brigade.

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Special Sale of Chester Whites at **CASS VALLEY FARM.** Lot of fall and spring pigs, dandies, at ½ their value. Write to-day and secure a bargain. **W. W. BALCH, Deford, Mich.**

25 HEAD OF YOUNG BOARS ready for service 7 to 12 months old. Fine, strong, growthy, of Wilkes, Free Trade and U. S. strains. Prices low for quality. **J. B. HAINES, Minerva, Stark Co., Ohio.**

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DON'T YOU WANT A P. C. SOW? **COCKEREL?** Hickory Grove has some great bargains. Also spring boars and fall pigs. **A. A. WOOD, Saline, Mich.**

First Premium Herd of Poland-Chinas. Sows bred to **KING KLEVER** for sale. Also some fall pigs. We won over one-third of the premiums offered at the Mich. State Fair in '97, winning all the firsts, 8 herds competing. **E. J. & L. HARRINGTON, Paw Paw, Mich.**

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THE COTSWOLD BREED OF SHEEP.

From Our Special English Correspondent.

The stronghold of the Cotswold breed is still undoubtedly Gloucestershire and Oxfordshire, but they are kept for breeding in several adjoining counties in England and in South Wales. Some breeders, a few years ago, took it into their heads to change their flock of Cotswolds for Lincolns, probably for the heavier fleece of wool the latter yield, but it is satisfactory to know that they are again returning to the Cotswold breed. Some of our principal exporters recently remarked that the Cotswold is gradually gaining favors abroad, as they do splendidly for crossing purposes with the Merino or other breeds feeding also where even the Lincolns would starve, having too a very hardy constitution and are a true "general purpose" breed.

The Cotswold is a farmer's sheep; there is nothing fanciful about it. It is practically useful and retains no characteristic which does not add to its rent-paying qualities. This may be due to the fact that it has almost invariably been in the hands of tenant farmers; there have been no royal princes or dukes to introduce fashionable points or to attract public favor by their patronage and support. This may have been a blessing, but is undoubtedly a mixed one, for while the sheep now retains its more practical qualities which might have had to give way to a more ornamental and less useful character had the nobility of the land taken the principal share in moulding the Cotswold sheep into form, at the same time, it would have become in those hands more widely known, more largely distributed, and the more celebrated flocks would have fetched a higher price than they do under present circumstances. There is still another defect which is incidental to thus having remained entirely in the hands of tenant farmers namely, that these sheep have not been more extensively shown at the agricultural exhibitions, for it is well known that showing does not pay directly, and, therefore, farmers are often chary of making the outlay which is needed for show expenses, but, although the system in all respects is not beneficial it is yet the most effective way of advertising a breed, and the bigger and better the show of any particular kind of sheep, the more it is likely to be run upon by breeders at home or abroad, and on the other hand, as other breeds are exhibited to a large extent a meagre show of a certain breed at the usual shows gives an impression that that particular kind is dying out and breeders or intending breeders leave it severely alone. It may have been that this decidedly false impression has arisen in the minds of some regarding the Cotswolds, but such an impression is altogether unwarranted. The establishment of a Cotswold sheep society has exerted a very favorable influence, and the formation of a flock book for the registration of pure bred sires and ewes has not only already added to their value, but been the means of creating a greater outside demand and influenced their more general distribution over the sheep-breeding countries of the world.

A good many outside farmers were persuaded to try crossing their flocks with Down rams, as they were told they would make more valuable sheep for mutton purposes, but while the first cross was quite a success it was found that subsequent crosses were not satisfactory, and instead of each cross making a better sheep, it made a worse one, so now a great many of these men have already come back to the Cotswold, and they say they have never had any sheep so satisfactory for wool and mutton. Personally, one breeder says he likes them because they give more wool and mutton than any other breed, hence more cash, which is the one end for which all are working. He likes them best because when he takes his friends to look at them, or into the show yard, they always have a presentable appearance, requiring nothing but the wind, rain and sunshine of heaven to put their wool in show condition, and no professional artist with comb and scissors to keep them in a noble condition. But

in setting forth the merits of the Cotswold I would not undervalue the other well known breeds. A man must first of all find out what kind of sheep his farm will carry best and then adopt that one breed, but the Cotswold is a class of sheep which is well worthy of patronage and support.

York.

AGRICOLA.

FOOT-ROT IN SHEEP.

To the Editor of The Michigan Farmer.

Please give me some information about foot-rot in sheep. I bought a flock of sheep last July and the man said he had always had more or less lame sheep, as the land they run on was the very heaviest of white clay. But he said he had had lots of good sheep men look at them and they said it was not foot-rot. There were no lame sheep in the flock at the time we bought them, and I knew the man to be straight and honest. But after we got the sheep two got lame right in the bottom of the foot. We put butter of antimony on and they got better, but not quite well. There were 32 ewes and about 50 lambs in the lot bought, and so far only two have been lame; but some other sheep out of our old flock have gone lame lately, and it seems to be right in the cleft of the hoof. These sheep have run together ever since last July. I didn't know if it was foot-rot or because they had got stuff in the crack of the foot and it froze.

I would like to know if this acts like foot-rot, or would it have spread quicker if it were? What would you advise?

Olivet, Mich.

A. D. M.

From your description of how the disease has acted it does not seem possible that it is foot-rot. Your flock would be more generally affected. It may be a case of frouls, originating from mud and dirt getting fastened in the cleft of the hoof, and causing inflammation, lameness, and finally running sores. In this last phase it is generally regarded as foot-rot; but it yields much more readily to treatment. Foot-rot begins in the bridge or junction of the cleft, and in its early stages gives the skin a whitish, par-boiled, or wrinkly appearance, accompanied with a disagreeable odor—also a feature of frouls, or foot-scald. A thin, watery secretion appears, becoming thicker and more offensive as the disease gets worse. It eats its way into the flesh of the foot inside the horn, and the latter drops off or hangs only by the skin. The entire foot becomes a mass of ulcerous sores, and the animal dies.

The first thing to do when a sheep shows lameness is to separate it at once from the flock. Cleanse out the hoof, and apply some remedy—butter of antimony is excellent. Keep the animal in a dry place, with a bedding of clean straw, until entirely well. If the disease is foot-rot, you will have to take a sharp knife and pare off all diseased portions of the foot, then apply the butter of antimony. Another remedy is a solution of blue vitriol, as strong as it can be made, and made just as hot as it can be borne. After the feet are pared, have the animal stand in the solution for a few seconds, then place in a comfortable and clean pen until entirely well. If done thoroughly, one application will be sufficient. This season, with its warm rains and mud, will be very apt to cause frouls, and pains should be taken to keep the flock in as dry a place as possible.

RAPE FOR SHEEP.

In answer to several queries regarding rape as a feed for sheep, we give a summary of the results obtained in tests at the Wisconsin Experiment Station. The average gain in fattening lambs on rape was two and a half lbs. per head per week. About one pound of grain per head daily was the average amount fed with the rape. Using our results in a conservative way, it may be said that if forty lambs are used to feed off an acre of rape and given some pasture and an average of one pound of grain per head daily, they will produce at least 400 pounds of mutton from the acre in one month. The attempt should never be made to feed rape to lambs without giving them a couple of hours grazing on pas-

ture before turning them into the rape. This is necessary for the safety of the lambs, as they are otherwise very liable to bloat and the combined feeding of pasture and rape results in better gains. For folding lambs on rape it is advisable to use hurdles. Using these the lambs may be confined to a small area until they have become accustomed to the rape. In this way further guards are thrown up against danger from scouring or bloating, which are two troubles that must be watched for in rape feeding.

Before the rape feeding is begun it is necessary to dock and trim the tails of the lambs. If they have been on poor pasture it is advisable to begin feeding them grain and keeping them on pasture for a week or so before allowing them on the rape. Then accustom them to the rape gradually. Before they go on the rape at first let them have pasture during the forenoons and then turn them on the rape for a short time in the afternoon. The lambs should be watched when on the rape, and if any of them show that they are getting too much of it by the swelling of their stomachs they should all be driven from the field. After following this plan for a week the time of pasture feeding may be reduced to about two hours' duration in the morning. Under no circumstances is it advisable to attempt to feed rape alone, for such a policy will almost invariably result in the loss of some lambs.

In addition to limiting the amount of rape and also feeding pasture in connection with it, carefulness should be observed in beginning the feeding of grain. One-half pound per head daily is liberal feeding at this time, and if the lambs will not eat that amount with a relish, less than this should be fed. It is advisable to feed some grain with the rape and pasture to fatten lambs. The safest grain to begin with is oats, but, as they are not very fattening in their nature, corn should gradually take their place with such other food as peas and oil meals, if these are available at reasonable prices.

The most common trouble in feeding rape is hoven or bloating. This is produced by the lamb eating too much succulent food. It ferments in the stomach and the gas accumulating causes the distension of the left side, which is the first sign of the appearance of bloat. When noticed in its first stages the lambs should be at once removed from the rape. Spirits of ammonia or hartshorn is the best medicine to give at this stage. A tablespoonful of spirits of ammonia given in one-half pint of warm water will usually lead to the reduction of the swelling. If the trouble has advanced so far that the lamb is down and the stomach very notably distended then it should be punctured at the point of the greatest swelling with a trocar and canula. By watching the lambs when first put on the rape and giving them spirits of ammonia in due season the trouble is easily met. However, there are some lambs that may be subject to this trouble in a chronic form and bloat without much cause. When the lambs scour it is because they are getting too much rape and too little pasture or oats. To counteract this looseness of the bowels keep the lambs longer on the pasture.

When it is the intention to feed lambs during two or three months of the winter season and put them on the January market, a month's run on the rape field previous to the shed feeding seems to have a beneficial influence on the subsequent fattening. Not only do the lambs make a satisfactory gain on the rape, but when put in the shed to feed we have found that they are in better condition to be fattened and make better gains than those that have only had pasture before being penned.

FLOCKS AND FLEECES.

Michigan lambs have been topping the Buffalo market for several weeks. When it comes to sheep and hogs Michigan is at the front; but in cattle—well, we won't say anything.

A large number of Western sheep have been, and are yet being, fed in this State. Results have not been as good as anticipated, as they do not sell well in Eastern markets.

Good yearlings have sold well this winter, and we believe the demand for them will grow. A yearling is as tender as a lamb, and can be grown with more lean meat in proportion to its weight. It is therefore more economical for the consumer than lamb, and just as palatable.

Some writer in an agricultural journal suggests the improving of farm dogs. It is a good suggestion. Dogs are credited with killing from 610,000 to 700,000 sheep annually in the United States. If they can be so improved as to spoil their disposition to kill sheep, the advent of the improved dog will be widely welcomed.

The shortage in good merino wools the world over is evidenced by a further advance in price at the London wool sales. American buyers have purchased a considerable amount of fine wool in Australia, and are taking all the best Australian greasy at the London sales. It will require a couple of years for Australia to make good the losses sustained in her flocks through last season's drouth.

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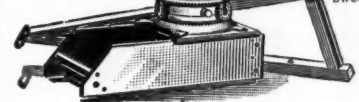
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Farmers' Clubs.

CONDUCTED BY A. C. BIRD.

All correspondence for this Department should be addressed to A. C. Bird, Highland, Mich.

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All communications relating to the organization of new clubs should be addressed to C. M. Pierce, Elva, Mich.

Association Topic for February: State Farmers' Institutes.

Association Topic for March: Farmers' Mutual Fire Insurance Companies. How Can They Be Improved?

THE STATE FARMERS' INSTITUTES ARTICLES.

We present to our readers this week two articles of the symposium of four which we promised them on State Farmers' Institutes. We announced the complete series in good faith, having on Jan. 1st written each of the four gentlemen named that unless we were instructed to the contrary we should make the announcement in the issue of Jan. 15th. Too late to inform our readers of the fact previous to this issue, we received a letter from Representative Graham stating that he had decided not to discuss the matter as invited. Although we have not heard from Mr. Kellogg, yet his article has not been received, notwithstanding we have waited until the last possible moment before making up the department.

While we are exceedingly disappointed at not being able to present both sides of the question in this issue as we intended, yet the fact that the people have thought for themselves along these lines will enable them to render a just verdict at the February meeting despite this misfortune.

To Representative Kimmis and Mr. Lockwood are due the respect of every one interested in this question. People can not all agree upon any question, but an honest expression always merits and receives respect. While Representative Kimmis had frankly expressed himself on the question in the legislature, notwithstanding the tremendous pressure brought to bear upon him by the friends of the measure, yet the fact that in the legislature no record is made of the speeches of the members renders it a far less serious matter to express one's self there than to express the same ideas in a widely circulated periodical like *The Michigan Farmer*, where every sentence will be carefully scanned by both friends and enemies, and must stand the test of time.

NO OPPOSITION TO FARMERS' INSTITUTES.

The marked feature in every discussion of the Farmers' Institute question is the unanimity with which the people agree that institutes are of incalculable value to the farmers of this State. People differ radically regarding their management, but on the question of having, or not having farmers' institutes, there is but one opinion.

Let the clubs in their February discussions remember that the question is not "Are Institutes Valuable?" but "Should the State make appropriations for their support?" and "Is the present management satisfactory to the Farmers?" We hope every club will answer these questions and report the same to this department.

FARMERS' MUTUAL INSURANCE COMPANIES—THE FEE SYSTEM.

In nearly every farmers' mutual insurance company in this State the secretary and agents are paid by fees. The practice generally prevails of allowing a fee of ten or fifteen cents per hundred dollars on all new insurance written and upon all increased and decreased insurance. These fees with others generally go directly to the secretary and agents in payment for their work. We believe that to this system may be justly charged the continually increasing high assessment rates of many of these companies. While few secretaries are deliberately dishonest, yet the most of them, like unto other men, are as thrifty as their opportunities permit without serious damage to their consciences. The experience of every company which has operated for a term of years under this system, proves conclusively that this extra ten cents which goes into the pockets of

their agents for each additional hundred dollars insurance secured, does result in dangerously high insurance.

It may be urged that the companies are protected by their reserved right to adjust the loss after the property is destroyed. This only partially meets the objection. It is a generally accepted fact among men who have studied this question, including the managers of the largest stock companies, who have made the business their life work, that too high insurance is a standing temptation to the property owners to burn their insured property and take the chances of deceiving the companies in the adjustment. We agree with the prevailing opinion, that few men succumb to this temptation; however, when it is remembered that if one member in one thousand burns his property, the assessment rate for that year is increased one dollar per thousand, the danger of the slightest temptation is made apparent.

The fee system in insurance is objectionable because it encourages too high insurance; it tempts agents to take objectionable risks; it results in dishonest fires and unjustly high assessments. Pay the secretary and agents by the hour for the work actually performed and these evils will be removed. Some of the new companies are doing this to good advantage.

GOOD NEWS FROM SECRETARY PIERCE.

In another column Secretary Pierce has good news for all farmers' club workers. Twelve new clubs for the first six weeks of the new Association year, is a proud record for the new officers of the Association. The fact that a goodly portion of this work has been done in Secretary Pierce's own county, assures the Association that no mistake was made in his selection.

WRITE TO THE ASSOCIATION SECRETARY.

Secretary Pierce asks that every club in the State send him at once their list of officers for the ensuing year, together with the postoffice addresses of the president, recording and corresponding secretaries. In the past it has been exceedingly difficult for the associational secretary to obtain this information. It is absolutely necessary that he have it. He needs it at once. Write him to-day. If you put it off till to-morrow it may be forgotten.

SHOULD THE STATE MAKE APPROPRIATIONS FOR FARMERS' INSTITUTES?

HON. A. N. KIMMIS, REPRESENTATIVE IN THE STATE LEGISLATURE.

For the citizen apart from his avocation and interest as a taxpayer the question involves only an abstract principle. For the farmer it is a question involving principle and policy. For a small number of people it involves a further element, that of personal profit, financial or otherwise. This latter class, so far as we have been able to discover, unanimously endorse the appropriation as right in principle and good policy. We refer to the unanimity of opinion held by this class simply as a fact having a bearing on the question and do not wish to be understood as offering it as proof that financial or other present or prospective gain has biased the judgment.

The history of Michigan is peculiar. He who carefully studies that history up to the time of the adoption of the present constitution can not fail to be satisfied that it was the intent of the framers of that constitution and of the people who adopted it, that every expenditure of public funds should find express or implied warrant in the constitution itself. We would cite from both constitution and history in proof of this proposition but the maximum of space allowed us prohibits. We have asked many of the advocates of this appropriation where in the constitution they found express or implied warrant. Those who attempt to give any constitutional authority for the measure claim to find it under one provision relating to education. Article thirteen of the constitution will prove an unlucky number for those who by its terms attempt to justify an appropriation for Farmers' Institutes. We find there warrant for and direction concerning our primary schools, the University, Normal School, institutions for the deaf, dumb, blind and insane, Agricultural College and township libraries. The very explicitness and particularization proves that it was the intention to prescribe and define the boundaries of the educational field which the State should occupy.

We have never heard a defense of class legislation. No one presumes to defend it. Prima facie an appropriation for Farmers' Institutes is class legislation. Its advocates attempt to prove that it is not, by making four assertions containing more or less truth, but lacking in relevancy to the main point.

They claim first, "Agriculture is the foundation upon which all other industries depend." This is but one-third true. I quote from the address of Prof. Bailey, a graduate of the Michigan Agricultural College, now professor of horticulture at Cornell University, and one of the best authorities on the ethics of agriculture. The address was given at the last commencement of the Agricultural College.

"We have been taught, I fear, that agriculture has some divine right which other occupations have not. We must not deceive ourselves. Every thing must ultimately stand on its own merit. Our civilization is one thing, one structure in which all the parts are working together for the good of man. It stands upon a tripod of industries, agriculture, manufacture, transportation. We need no class legislation." No thoughtful person will dispute the above statements. Agriculture is one of the supports of our industrial structure. Manufacture and transportation depend upon it, but agriculture also depends upon manufacture and transportation. The farmer's three-legged milking stool is no stronger than the weakest leg.

It will not stand on two legs. Every argument in favor of an appropriation for the development of agriculture will apply with equal force for an appropriation for the development of manufacture or transportation—a legitimate conclusion from which farmers revolt.

Advocates of the appropriation assert, second: "More people are engaged in agriculture than in any other pursuit." True. Of the population of Michigan over ten years old, about seventeen per cent are agriculturists, but it requires no argument to prove that legislation which confers special favors upon seventeen per cent, or fifty per cent, or ninety per cent of the population is class legislation and an injustice to the remainder who must assist in providing the bounty.

Assertion third: "Any benefit bestowed upon the farmers will confer an indirect benefit upon all other classes." If that be true, it is equally true that any benefit bestowed upon other classes will confer indirect benefit upon the farmers, and an appropriation for any class may thus be justified. Indirect benefit as a justification for taking the people's money has already been carried too far in this state, as we mournfully appreciate when we pay our taxes.

Assertion fourth: "Other states are appropriating money for Farmers' Institutes." An argument so puerile as to merit no attention.

The State should not force its gratuities upon an unwilling recipient. Farmers as a class are credited with seeking the appropriation and as a class they are charged with it.

We affirm that the majority of the farmers of Michigan are opposed to the appropriation. Certainly it was a very small minority that asked it. Yet because one is a farmer he can not escape being included among those who will ultimately suffer disadvantages because of this unwarranted procedure. This feeling is general and so pronounced in one locality that at least one County Institute Society absolutely refuses to receive any portion of the fund appropriated by the State, and several counties refuse to have any connection with the State management of Institutes.

We remember well who were most active in urging the legislature to make this appropriation, and a careful study of subsequent history affords some ground for the belief that many of them were inspired by the hope that the extra tax thus added to the State's capacious udder would come within their reach. Some of them are now sucking. It has been truthfully asserted that those members of the legislature who most earnestly opposed the appropriation were farmers. A legislator should forget his avocation and remember that he represents, not a class, but the entire people. Had those farmer legislators been inspired by the ignoble motive of seeking only the good of the class to which they belonged, still they would have opposed the appropriation. Those legislators who were advocating large appropriations for various purposes were eager to throw this eleven thousand dollar sop to the farmer members and it filled the mouths of some of those

farmer members so full that they were powerless to say one word in favor of reduced expenditures. In vain did the farmer opponents of the measure appeal to those of other avocations not to force this gratuity upon the farmers of Michigan. It required no seer to foretell the result of such action. It was felt when the next vote was taken upon an appropriation. It throttled individuals and it will throttle and dwarf the influence of organizations when they come before the next legislature demanding economy.

The granting of this appropriation thus becomes a positive injury to the class which it purports to benefit. Farmers' institutes or other gatherings of farmers for mutual improvement are not dependent upon State aid. The wonderful rapidity with which the farmers of Michigan are organizing proves that they are alive to their interests. They are not demanding that experts from a distance, unacquainted with local conditions of soil or climate, shall be sent to instruct them in methods of agriculture. Knowledge of better methods of farming is desirable, but a better means of acquiring that knowledge is within reach and is being adopted. Farmers and farmers' organizations are demanding that a larger proportion of the proceeds of toil be left in the pockets of the producer. When they come before the legislature asking a reduction of taxation must this eleven thousand dollar sop be forced in their teeth as a gag? Farmers' Clubs, Granges, Institutes are all good and we can have them without State aid. The local society now pays at least three-fourths of the expense of a farmers' institute; the other one-fourth can easily be raised and independence, which is above price, should certainly not be exchanged for the miserable pittance received. Certain classes of the citizens of Michigan are justly made the objects of the State's solicitude. There are the deaf, the dumb, the blind, the insane, the criminals, the paupers, the feeble-minded, etc. Do the advocates of an appropriation for the benefit of farmers choose to enroll the farmers under some one or more of the classes enumerated? Does the State send emissaries to the farmers because there is not room for all at Lapeer? Or is the class "Farmer" henceforth to be added to and included in the long list of unfortunate classes who are objects of the State's charity? Notable exceptions to the contrary, the farmers of Michigan object to being thus enrolled.

IS THE PRESENT INSTITUTE MANAGEMENT SATISFACTORY TO THE FARMERS OF MICHIGAN? NO.

Have we a family of Aaron? A tribe in republican Michigan who inherit the agricultural priesthood, and who are to receive tithes from all the people of all they possess? A tribe who are hedged about with laws, and that other vague and shadowy thing known as a "ring," so often heard applied to the agricultural powers at Lansing?

Mr. Editor, in your refusal to publish a former article upon this subject, you say you have forty other similar articles and can not publish all, therefore in justice, you will publish none. What! from these conservative farmers who do not "rush into print"? They are interested. They are in earnest. They are dissatisfied with the management of our Institutes. No question ever before took such a hold upon the Michigan farmers.

Are the charges made by "Reader" from Oakland Co. true? They are not new, but are heard on every hand. They intimate that there is some power vested in the Secretary of the State Board of Agriculture to reward his friends and punish his enemies, and that he is not slack concerning these things. Is it alone the Superintendent of Institutes that is complained of? Would the mere change of superintendent satisfy the farmers? How often has the Agricultural College been laid on the altar ready to be sacrificed in the last few years?

It is doubtful if a man fully equipped for the office of superintendent could be found who would accept the position, until it had been disinfected of the odor of rings and schemes. It is not so much that a man now holds the office who has never exhibited, at any time or in any way, the requisite qualities, but how did he get there? Is there a "close corporation limited" by which all the offices and appropriations are absorbed at Lansing? Is it a fact that the superintendent holds two or three salaried offices? It is possible his time and thought is given

to other and more important official duties. If so he should be relieved of this burden. The facts are the farmers know there is something wrong in the Institute management. They hear complaints. They have no definite knowledge. They assume that it is all wrong and are ready to act accordingly. Are we to have an indiscriminate slaughter of our agricultural interests at Lansing to purify the agricultural atmosphere?

What are the practical results of the present management? Monroe Co. has been holding two, and sometimes three, institutes annually for the past thirteen years, and has occasionally been aided by the State. Two years ago we came under the State management. Last year we held four institutes, two County and two State, we paying all the bills except State speakers. At our coming institute at Dundee, Feb. 12, the expense account stands as follows: Institute tax Monroe Co. \$ 75.00 Expense for Opera House. 10.00 Programs. 5.00 Traveling expenses and hotel bills paid by general officers, three meetings, to insure success. 10.00 Advertising advised by State management. 10.00

Total \$110.00 For which we get from State speakers, in round numbers, eight hours' work, in lieu of which we may receive \$25 if it shall please the powers that be to give it. This \$25.00 we have tried to get, but it is so carefully done up in red tape that we abandoned the effort. This makes an institute quite a luxury.

For the State workers we have the kindest feelings and the highest respect. We number among them many personal friends. But they are known only to the few. They are introduced as Hon. so-and-so, Prof. so-and-so. It is taken for granted that these men are authority upon the subjects they present. If the farmer agrees he will not elaborate. If he disagrees he will not discuss. He is silent but not idle. His mental conclusions are, "This theory does not accord with my experience: The theory is false." We have lost the practical experience of the one and discounted the valuable knowledge of the other, while discussion would have explained conditions and instructed all. I regret to say there is a prejudice against the workers, due to the feeling toward the management.

There have been papers presented at our institutes that were a credit to the men and women of Monroe Co., and to the State. Papers full of enthusiasm mixed with ripe experience and the wisdom that comes of patient study and strong faith, and with none of the thick atmosphere of office about them. These are lost to the State because the "management" can not pay for their presentation at the "round-up." Instead we have largely the same old stories that have been dragged through the State all winter by the same tired workers, then printed to be read by those who had heard them repeated.

A paper was read before the Monroe Co. Institute for which the writer was offered ten dollars at the time of its presentation, but declined, expecting to read it at the round-up. But upon ascertaining that he would be required to pay all his own expenses and then donate the paper, he laid it away in disgust. To every request for help from Monroe Co. the "Law" or the "Rules" have been cited. Who fixed the law and made the rules that no money is permitted to get outside the "ring"? There is a good grist taken every year from Monroe Co. to the Lansing mill. We barely get the toll. Who gets the grist? Is the farmer at the wrong end of the string?

We believe the time is ripe for a change in the Institute management at Lansing. It can and should be done decently and in order. It is to save other interests dear to the farmers of the State that the demand is made. If the farmers are called upon to clean house at Lansing some of the statutory may get broken. They are in no mood to handle things carefully.

E. L. LOCKWOOD.

THOUGHTS ON CLUB WORK.

ASSOCIATION PRES. E. J. COOK.

I am in receipt of numerous inquiries requesting my opinion as to the means best suited to keep the farmers' clubs of the State united in thought and action. The cheapening of the process of printing and consequently almost universal introduction of the printed page into every walk of life, has been a mighty factor in the progress of the last few decades. The printing press has broadcasted infor-

mation, broadened thought, and made concerted action possible among individuals whose interests are the same but who are geographically separated, and is the mighty lever which we must grasp.

Our State organ, The Michigan Farmer, has been of the greatest possible benefit to us and to our clubs. The club department under the skillful management of A. C. Bird is, in my opinion, just what we need, already at our hand, and we should make the most of it. I wish every member would constitute himself a committee of one whose duty should be, as a club member and as a farmer, to extend the circulation of The Michigan Farmer. This would not only help the clubs of the State by spreading knowledge of their work, but would be a grand thing for the individual farmers who are led to subscribe.

Let us have a good reporter to The Michigan Farmer in every club in Michigan, that we may know what the other clubs are doing and the opinions and arguments on the topics discussed.

I am told that The Farmer does not always print reports when sent. If so, perhaps it does not receive them or they are not of general interest. We know the clubs always have a right royal dinner, good music, readings and recitations well rendered, and these we do not care to hear about. What is wanted in The Farmer is, I think, a short crisp synopsis of the views of the club members on the leading topics discussed.

Some of us may underestimate the importance of reports in our county papers. The county papers will be a strong ally in building up and strengthening our organization at home. They need our support, we need theirs. Let us do what we can to form and strengthen the alliance.

I should like to very strongly urge the importance of every club keeping an active, energetic and capable committee to assist in organizing clubs around them. This is the best season of the year to accomplish work in this line, but any time is opportune when there is an opportunity.

The officers of the State Association are especially anxious that clubs be organized in counties where there are none. Any section desiring their help will find us ready and desirous to assist them.

Fellow club members, let us use every means at our command to increase, unite and strengthen our forces and then we shall be ready for any emergency or any work that may present itself.

FROM THE ASSOCIATION SECRETARY'S OFFICE.

Friends of the Farmers' Clubs of the State of Michigan: No doubt you will be pleased to learn that the good work of organizing new clubs is steadily advancing. There have been twelve new clubs organized since the State Convention, and I am almost daily in receipt of inquiries for instructions for organizing more. Farmers seem to be waking up to the fact that there is much benefit to be received from these clubs. Every one seems to find the club of much more benefit than was anticipated when first organized in their localities, and nothing but the highest praise is spoken of them, not only by the farmers, but by all classes and professions.

I see by the reports of clubs in this department that many old clubs have elected new officers for the ensuing year. But few have sent a list of their new officers with their addresses to this office. It is absolutely necessary that the secretary of the state association have a list of the new officers and their addresses. If officers of local clubs will please bear this in mind it will greatly facilitate the work of your secretary. I also wish to call the attention of every club member in the State, and especially that of the officers of local clubs to the report of the committee on club extension as adopted by State association which is as follows:

1. That each existing club appoint a committee on club extension, and that each member constitute himself an active committee of one for this important work.

2. That at each one-day institute there be an especial effort made to interest farmers in club work, and one or more persons appointed to meet farmers to organize new clubs, and who can furnish constitution and by-laws and take general supervision of the first meeting.

3. That programs and reports of club meetings be furnished to local papers for publication, and effort be made to interest the local press in the interests of club work and extension.

Every member should take this report as applying directly to himself and work along these lines. Look up the date of your institute and be sure and be there.

I also wish to emphasize the matter of full reports of your club meetings being sent to your local paper for publication. It helps wonderfully to keep up interest in your meetings and makes it easy to extend the work of organizing. In conclusion, I would say there has been some unavoidable delay in the publishing of Constitution and By-laws, and Declaration of Principles, as passed by the State Association, but they are now published and will be sent to the secretaries of clubs as soon as possible. They ought to be published by every local paper in the State.

C. M. PIERCE,
Association Secretary.

REPORTS FROM LOCAL CLUBS.

NAPOLEON FARMERS' CLUB.

The November meeting of the above named club was held at the home of Mrs. Bronk. The election of officers resulted as follows: President, H. Bachtal; vice-presidents, C. A. Elliott, Mrs. C. D. Morse; treasurer, Mrs. F. M. Andrews; secretary, Miss Minnie Bronk; corresponding secretary, F. M. Ellison.

At the December meeting, held at the home of F. M. Andrews, the report of the delegates to the State Association was received and accepted.

At the January meeting we expect a paper by M. L. Dean, of the Agricultural College; subject, "The Agricultural College and its benefits to the farmer." The meeting will be held with J. F. Dean on January 15.

Jackson Co. Sec.
FULTON CENTER FARMERS' CLUB.

Our club met January 6 with Glen Walker.

A lively discussion was had on "Free Rural Mail Delivery." It was thought that the farmers ought to have the benefit of such conveniences as well as people living in the city.

"The Postal Savings System" was well discussed, after which a vote was taken, proving that our club was in favor of postal savings bank.

Then came the report of the delegate, John Price, who was sent to the State Association. It being quite long, there was not time for the State question, so we adjourned to meet with F. A. Lewis the first Thursday in February, at which time the North Shade Club is invited to meet with us.

Gratiot Co. Sec.
MRS. ABEL SKINNER,
Cor. Sec.

DUNDEE FARMERS' CLUB.

The club met at the home of L. B. Smith on the 7th inst., and was a grand success intellectually, numerically and gastronomically. A fine literary and musical program was rendered, after which R. I. Ingraham read a paper on the question, "Shall we keep all the boys on the farm?" The production was finely written and enthusiastically received, and seemed to admit of but little discussion. Considerable time was consumed in making arrangements for the Monroe County Institute, which is to be held in this village on February 1 and 2.

Monroe Co. COR. SEC.
WEBSTER FARMERS' CLUB OF OAKLAND.

This club met at the home of Frank Holser January 5. Our literary program was dispensed with entirely on account of the reports of the delegates consuming all the time. They reported a pleasant and profitable time at the Association. Mr. Emery said Assistant Secretary of Agriculture Brigham's paper alone would pay the car fare. The club jokingly reminded him they would consider his paid then. He said the time was too limited to visit the several departments and do them justice. He spoke in very high terms of the Industrial School and School for the Blind. Thought in the last named they did some wonderful work, considering the disadvantages under which they had to labor.

S. C. Elwood had evidently kept notes, as he presented quite a lengthy and very interesting paper, speaking mostly of the Industrial School and School for the Blind. He thought all appropriations for such schools should be cheerfully granted. He showed a paper edited and printed by the boys in the Industrial School. They are taught cooking, tailoring, making shoes, repairing of their clothing, etc. Hon. W. E. Carpenter, member of the Legislature of 1891, was then called. He said he did not go to report, but to watch the delegates. Found quite as much lobbying going on there as in the Legislature. Spoke in high terms of Judge Moore's and the Governor's address and thought the literary program was good, but said had the resolutions for discussion been interspersed in the program, some that had to leave early would have had a chance to listen, where they did not hear any of it as it was.

Oakland Co. Sec.
MRS. T. SEAMARK,
Cor. Sec.

IRRITATION OF THE THROAT AND HOARSENESS are immediately relieved by "Brown's Bronchial Troches." Have them always ready.

You make a mistake

if you have a Dairy or Creamery

When you do not use

The Best Separator on the Market

The Improved United States Separator

Send for catalogues filled with testimonials.

It excels all others in

THOROUGHNESS OF SEPARATION.

BELMONT, MD., June 12, 1897.
The Improved U. S. skims closer than any machine I know of.

E. P. THOMAS.

LYNDONVILLE, VT., Nov. 26, 1897.
The Improved U. S. is by far the smoothest-running separator I have ever seen in operation. As a skimmer it beats anything I have ever tested.

W. I. POWERS, Mgr. Speedwell Farms.

GROTON CITY, N. Y., Dec. 20, 1897.
I placed your Improved U. S. beside an "American," gave them an equal test, and decided the U. S. cheaper at \$125 than the "American" at \$100. The "American" left twice as much fat in the skim-milk.

F. A. COATZ.

BARDWELL'S FERRY, MASS., Feb. 11, 1897.
The skim-milk from Improved U. S. shows only .015 of 1% of butter fat. It is operated by my two boys, aged 8 and 13 years.

F. L. TOTMAN.

LEDLOW, VT., Nov. 13, 1897.
The Improved U. S. Midget runs full capacity, and gets the last drop of fat.

W. H. H. CHAPMAN.

Catalogues free on application.

VERMONT FARM MACHINE CO., Bellows Falls, Vt.



\$16.34

BUYS

this 2-h. steel mill: guaranteed easiest running; strongest made; pumping and power mills, 8 to 16 ft.; also tanks, pumps, pipe & all pumping supplies. We furnish complete outfit. Prices all reduced. Catalog free. Don't fail to send for it.



\$5.95

buys a 2-horse chaffed plow. Turns furrow 14 inches. 11 sizes chilled plows. The all-steel plow in picture cuts 12 inches. Made of best material; warranted to scour in any soil. Price, \$5.95. 50 sizes and styles steel plows to select from.



\$15.40

This 2-h. Disc Harrow cuts 6 ft., has 12 16-in. discs. Wt. 350 lbs. Price, \$15.40. 5 other sizes. A 16-tooth Spring Harrow—price, \$8.75. All other sizes at reduced prices; also wood & steel frame smoothing harrow.



\$10.95

This 2-horse Cultivator, made of best material, with shields, neck, yoke and doubletree, steel wheels. Price, complete, \$10.95. Usually sells for \$15 to have 20 different styles and kinds to select from. Seeders—also \$15.



\$2.85

buys this Steel Beam Cultivator, plain, with 5 steel reversible shovels, giving two wearing edges. Spreads to 33-in. Most useful one-horse Cultivator made. We

Send for free 208-page Spring Agricultural Catalogue
MARVIN SMITH CO., 266 S. Clinton St., Chicago, Ill.

Miscellaneous.

THE NORTH WALK MYSTERY.

BY WILL N. HARBEN.

[Copyright 1897, by Will N. Harben.]

(Continued.)

"You think, then, that he was in evening dress last night?" asked Dr. Lampkin.

Hendricks opened a closet. "See all those coats neatly hung on coat stretchers back there?" he asked.

Lampkin nodded.

"That shows the young man is orderly by habit," went on the detective. "Well, here hangs his evening suit. It has simply been jerked on to the hook. You know a man is more particular about his evening suit than any other. There is little doubt that Ralph Benton took off these garments in a rush last night." Hendricks carried the coat, vest and trousers to one of the windows and examined them closely in the light. Lampkin saw him holding up first one article and then another, with a perplexed look on his face.

"What's up?" asked the doctor, approaching him.

"I can't account for the presence of these fragments of tow," answered Hendricks. "I find them on the lapels of the coat, on the front part of the vest and absolutely rubbed into the cloth on the inside of the trousers legs. See!" he exclaimed. "The silk has been worn off one of the vest buttons."

"That's strange," said Lampkin.

"I should think so," answered Hendricks. "How in thunder could a man get a suit of clothes in exactly that condition?"

"Might have been drunk," suggested the doctor.

"That would not account for a direct line of tow fragments from his ankles to his neck," said Hendricks. "If it were covered all over, it would be different, but"—Hendricks turned and hung up the garments as he had found them. "It's chaos, my friend," he said. "Never was a matter in a more nebulous condition. First it's Miss Benton, then Montcastle, then Ralph, then"—

"Me?" jested Lampkin, seeing that Hendricks had stopped for lack of words.

"Yes, you, blast your ugly picture!" retorted the detective, with a merry laugh. "You did it in your sleep after swimming the river in your nightshirt, holding your revolver over your head to keep it dry. Then you swam back, got into bed, and I waked you."

"You never play the clown except when you are thwarted, and you rarely play the clown," said Lampkin. "Implied compliment—see?"

"Epigrams. You shall write them for my play," said Hendricks.

"You have forgotten more bright things than I know," said Lampkin.

"You'd know more if you'd forgotten fewer of your witticisms. How's that for a roundabout compliment? I believe I shall write my epigrams myself."

Some one rapped on the door. Hendricks opened it. It was Jane, the housemaid.

"A man with a dog is down stairs, sir, to see you," she informed Hendricks.

"All right. Tell him I'll be down at once," said the detective. "He got here quick enough," remarked Hendricks to the doctor as they started down the stairs.

CHAPTER IX.

As they descended the last flight they saw Johnson in the front yard, holding Nebo by a chain. Instead of going directly out to him the detective turned into the library, where they found Miss Hastings and Miss Benton in conversation with a heavy-set, gray-haired man about 60 years of age.

"Mr. Allen, Mr. Hendricks," said Miss Benton. "I don't believe you have met."

Hendricks gave his hand to Mr. Allen.

"You live in the house, I believe, Mr. Allen," he remarked.

"Yes," said Mr. Allen—"that is, I was living here till quite recently."

"I didn't see you at the inquest, I think."

"No," stammered Allen. "I—I have just learned of the murder through a morning extra. It is a horrible affair."

"I presume you were surprised to hear of such a thing happening to your partner," remarked Hendricks tentatively.

The spot where Allen stood was rather dark owing to the window cur-

Nature's Cure for the Kidneys and Bladder

AND URIC ACID OR RHEUMATIC CONDITIONS.

THE WONDERFUL KAVA-KAVA SHRUB.

A Free Gift to Every Reader.

In a recent issue our readers were informed of the discovery of the Kava-Kava Shrub, a new botanical product, of wonderful power in curing certain diseases. The Kava-Kava Shrub, or as botanists call it, *Piper Methysticum*, grows on the banks of the



THE KAVA-KAVA SHRUB
(*Piper Methysticum*.)

Ganges river, East India, and probably was used for centuries by the natives before its extraordinary properties became known to civilization through Christian missionaries. In this respect it resembles the discovery of quinine from the Peruvian bark, made known by the Indians to the early Jesuit missionaries in South America, and by them brought to civilized man. We have previously quoted Dr. Archibald Hodgson, the great authority on these diseases in which he describes the sufferings of both Hindoos and white missionaries and soldiers on these low, marshy swamps and jungles on the Ganges. He says:

"Intense tropical heat and moisture acting upon decaying vegetation render these low grounds on the Ganges most unhealthy districts. Jungle fevers and miasma assail the system. * * * The Blood becomes deranged and the Urine thick and dark-colored. * * * Life hangs in the balance. Then when all modern medical science fails, safety is found in the prompt use of Kava-Kava. A decoction of this wonderful botanical growth relieves the Kidneys, the Urine becomes clearer, the fever abates, and recovery sets in," etc.

The Kidneys may be called the strainers of the human system. Their duty is to strain out and separate from the Blood various poisonous substances, such as Uric Acid, Urates, Lithates, etc., and cast them out of the system through the Urine. If this is not done, these poisonous substances are deposited in the joints and muscles and cause Rheumatism and Gout, or they cause diseases of the Kidneys and Bladder, Bright's Disease, Pain in Back, Dropsy, Blood Disorders, and various other maladies.

Of all diseases that afflict mankind, Diseases of the Kidneys are the most fatal and dangerous, and hence the discovery of the Kava-Kava Shrub—Nature's Positive Specific Cure for Diseases of the Kidneys—is welcomed by suffering humanity, and its medical compound Alkavis universally endorsed by the Hospitals and Physicians of Europe, in which it at once recorded over 1,200 cures in less than 30 days.

Hon. R. C. Wood, a prominent lawyer of Lowell, Indiana, was completely cured of severe Rheumatism, and Kidney and Bladder disease, by Alkavis. He gratefully writes as follows:

"I am now 55 years old and have used various kinds of medicines. For the past ten years I have suffered from rheumatism, and have suffered from kidney and bladder trouble for the past five years. I have been treated by all our home physicians and by three different specialists, besides having used various so-called specifics without receiving the least benefit. My bladder trouble became so troublesome that I had to get up from five to twelve times during the night to urinate. In fact, I was in misery the whole time and was becoming very despondent. * * * I have now used Alkavis and am better than I have been for five years. I know Alkavis will cure bladder and kidney trouble, and can most heartily recommend it to all sufferers. * * * It is the cheapest and best treatment I ever used. I feel so grateful to



Hon. R. C. Wood, Lowell, Ind.

tains being drawn, and Lampkin could not see the old man's features clearly, but he fancied that his voice betrayed decided nervousness.

"I was, of course. It—it was all like a—blow, don't you know," said Mr. Allen. "He was the last man!"

There was a loud barking of a dog outside. Hendricks stepped quickly to a window and parted the curtains.

"It's my bloodhound," he remarked, his gaze bent on Allen's face, which was now exposed to the full light from the outside. "I sent to New York for him. He is a fine English dog and can scent down the murderer if he is anywhere near here."

Allen turned his face from the light. Lampkin thought he looked ill.

"What are you going to do with him?" asked Miss Benton.

"We will all go out to the north walk if you don't object," returned the detective, "and then I'll show you how keen his scent is."

"Oh, I don't want to see it!" cried the young lady. "The idea is horrible. You gentlemen may go, but Julia and I will stay here."

Allen said nothing, but Lampkin noticed that he put his hand on the edge of a table and leaned on it, quivering nervously.

"All right, then," said Hendricks. "Come on, gentlemen."

Again the barking of the dog was heard. This time it was nearer.

"Ah, there he is!" went on the detective enthusiastically. He threw up the window sash and called, "Here, Nebo, here!" Miss Hastings and Miss Benton drew near to Hendricks and looked out. A man was holding by a chain a great animal, with dripping jaws and flapping ears. The skin hung in loose folds on the hound's neck, and his eyes were deep set and dashed with red.

"Here, Nebo!" called Hendricks, making a chirping sound with his lips. The dog saw his master and bounded toward him so quickly that the chain was jerked from his keeper's hand. The next instant the dog had his fore paws on the window sill, was barking joyously and trying to climb into the room.

Uttering little screams of fear, the ladies retreated from the window.

"Catch his chain, Johnson," ordered the detective. "If he gets into this room he'll smash every piece of bric-a-brac in it. He's great on a breakdown."

Johnson caught the chain and drew

the animal down from the window sill.

"No cause for fear, ladies," Hendricks assured them. "He is as gentle as a lamb except when he smells blood on the trail. Come, Mr.—er—Allen, don't you want to see an exhibition of his skill?"

"I hope you will excuse me," said Allen. "I am really not well, and the news of my old friend's death has frightfully upset me. I wish you all possible success, but I would not care to witness your investigations unless—unless I were feeling better or could be of assistance. I think I shall go to my old room and lie down. I was with my physician last night, or, rather, he came to see me."

Hendricks was surveying the man studiously as he spoke, and when he had finished he asked suddenly:

"Who is your physician?"

Allen sat down on a lounge and clasped his hands between his knees.

"Why, Dr.—er—Burton," was his slow reply.

"Think I have heard of him," said the detective. "Madison avenue, eh?"

Allen hesitated, and as he did so his eyes roved uneasily about the room.

"No; he is not on Madison avenue," said he presently, and his gaze met that of the detective steadily, almost doggedly. It seemed to Lampkin that Hendricks had not heard Allen's last words. He had turned smilingly to Miss Benton.

"You'd not be the least bit afraid of Nebo if you knew what a friendly fellow he is," he said, and bowed as he left the room.

Outside the dog sprang joyfully to his master, climbed upon him with his fore paws and tried to lick his face.

"Do you think he will be of use?" asked the doctor when Johnson and the animal had fallen behind as they went toward the north walk.

"I don't know yet," answered Hendricks, "but I am afraid not. However, he may bring some little light to me when I see him at work."

When they reached the spot in the north walk where the murdered man had lain, Hendricks unclasped the chain from the dog's neck and with his hand touched one of the footprints. Instantly the animal lowered his nose and smelled the ground. Then with his nose to the sand he ran quickly to the spot where the tracks had ended. Here he stopped. He could go no farther. Back he came to the spot where

the corpse had lain, made a little circle and then with a glad bark darted over the grass toward the gate at the side of the grounds.

"No good," muttered Hendricks in a tone of disappointment. "He will lose the scent out there where so many people have passed to and fro."

The dog ran on to the gate. They saw him spring over the wall and dart here and there as if bewildered in the street. Then he set up a dismal howl of defeat.

Hendricks whistled to him, and Nebo trotted back, looking quite dejected and ashamed.

"Poor fellow," said the detective, as he clasped the end of the chain on to the dog's collar. "Even you are puzzled. Take him home, Johnson."

Just then Ralph Benton emerged from the back veranda and started toward them, but seeing them he turned and disappeared in the house.

Hendricks winked and grinned at Lampkin.

"One reason I sent for the dog," he said—"I wanted to see who'd be afraid of him. Allen is either afraid or is sick, and Ralph found he had forgotten something the moment he laid eyes on the animal."

"Do you think Mr. Allen was really ill?" asked Lampkin.

"I don't know. I'm going to get Kola to look up all the Dr. Burtons in New York and see if he can find one who went to see Allen in the city last night. I'd like to catch him in a misstatement."

"Kola?" said Lampkin. "Who's he?"

"Ah, that's a fact! You have never met him. I have only known him about two weeks. He is an East Indian, a very sagacious young man. He came all the way from his native land to take lessons under me and has thrown his whole soul into detective work. I shall write a message for you to send to him after you get over in New York."

"You are going to dispense with my services?" asked the doctor.

(To be continued.)

JUST AS ADVERTISED.

The Lawrence Pub. Co.
Gentlemen—We received The Michigan Farmer sewing machine Nov. 26.

It gives entire satisfaction and is just as advertised. Yours respectfully,

ABRAM VERSTRATE.

Ahtanum, Washington.



Mrs. Castle, Poestenkill, N. Y.

you for the relief I have received that I feel I owe it to you to write you this. You are at liberty to use this as a testimonial if you wish, and I will also cheerfully answer all sufferers writing me for particulars regarding Alkavis. It is a wonderful and grand, good remedy; it is powerful and searching, going right to the very root of the disease and driving it out of the system, never to return. Try it all ye who suffer and be convinced. You will then be as enthusiastic in its praise as I am. Wishing you the success you deserve, I am, Most respectfully yours, R. C. WOOD, Attorney-at-Law and Notary Public.

The celebrated American physician, Dr. J. M. S. Thomas, reports that Alkavis promptly and effectively cured four well marked cases of Bright's Disease among his patients, and writes:

"I have fully tested the value of the Kava-Kava Shrub (Alkavis) in Kidney, Bladder and Urinary disorders, as well as in Rheumatism and Dropsical Effusions, with the most remarkable and satisfactory success."

Among other leading doctors who write of the great curative effects of this New Remedy, are Dr. L. F. Calhoun, of Jonesville, La.; Dr. J. B. Cyfert, of Frost, Texas, and Dr. G. C. Prichard, of Phelps, New York, who have used Alkavis for themselves or their patients with most remarkable success in curing Bright's Disease, Nephritis, Inflammation of the Kidneys or Bladder, Locomotor Ataxia and Rheumatism.

Rev. W. B. Moore, D. D., of Washington, D. C., Editor of the "Religious World," writes of the wonderful curative effects of Alkavis in his own case, as it cured him after years of suffering from Kidney and Bladder disease and Rheumatism.

Mr. J. R. Burke, of Clarendon, Arkansas, testifies to his cure of Bright's Disease by the wonderful power of Alkavis. He writes:

"I desire to give credit to whom credit is due. In February 1894, I was taken with Kidney trouble and my urine was of a very dark color and heavy brick dust deposits. I was confined to my room ten weeks with constant attention of two physicians, who at last pronounced my case Bright's Disease, and incurable. I was advised by a friend to try Alkavis, which I did. I was able to work in the yard in a week, and now I am as well as I have been in five years."

Rev. A. C. Darling, of North Constantia, Oswego, Cc., New York, writes that he had suffered for sixteen years with Heart, Kidney and Bladder disorders, often having to use the vessel sixteen times during the night. Alkavis promptly cured him, and as he writes, he now sleeps all night like a baby.

Many ladies also join in testifying to the wonderful curative powers of Alkavis in Kidney and allied diseases, and other troublesome afflictions peculiar to womanhood, which cannot with propriety be described here. Among these may be included Mrs. Susan B. Castle, Poestenkill, N. Y.; Mrs. James Young, of Kent, O.; Mrs. Alice Evans, of Baltimore, Md.; Mrs. Mary A. Layman, of Neel, W. Va.; Mrs. Sarah Vunk, Edinboro, Pa. and Mrs. L. E. Copeland, Elk River, Minn.

While Alkavis is well-known in Europe its only importers in this country so far are The Church Kidney Cure Company, of No. 409 Fourth Avenue, New York City. They are so anxious to introduce Alkavis and prove its great value that they will send free one Large Case of Alkavis, prepaid by mail, to Every Reader of THE MICHIGAN FARMER, who suffers from any form of Kidney or Bladder disorder, Bright's Disease, Rheumatism, Cystitis, Gravel, Female Complaints and Irregularities, Dropsy, or other affliction due to improper action of the Kidneys or Urinary Organs. All readers of this paper who are sufferers should send their names and address to the company when they will receive the Large Case of Alkavis by mail free. To prove its wonderful curative powers it is sent to you entirely free.

FREE TO EVERY READER!

The Dairy.

We have a complete Dairy and Farm Creamery in constant operation on the Experiment Farm at Climax, Mich. This is personally conducted by J. H. Brown. All dairy correspondence should be sent to Climax, Mich.

THE EDITOR'S DAIRY NOTES.

THE BEST FLOOR AND GUTTER FOR COW STABLE.

This question has come to us very frequently this winter. It makes considerable difference as to whether the stable is to be a permanent structure or a temporary affair.

The best floor, in our opinion, to consider the question from an economical standpoint, is one made of clay, or a combination of clay and gravel.

The gutter can be constructed of cement or of wood. Cement gutters, if properly made, are the best, because they will not deteriorate from continued use. A well-constructed wood gutter, properly laid, will, however, last several years.

We are trying one gutter made of white oak, seasoned when laid, while another was made of pine. All the material used was two inches thick. Both gutters have been in use daily for four years, and not a single leak has made its appearance.

Directions for laying cement floors have been repeatedly given in these columns. For a well-constructed permanent stable, we should advise laying the best quality of Portland cement, especially for the surface or finishing coat.

In laying a clay floor one needs to take considerable pains, for with care it is possible to make as durable a clay floor as anyone could require, if occasional repairs are made.

The whole surface of the stable foundation should be leveled first. The mangers, stalls, alleys and gutters can then be put in, provided there are no sills to bed down for partitions, heel plank for gutters and support for mangers.

For our stables we used white oak grubs for sills. These were hewed on one side only, and used to support the studs for partitions and mangers. They were "bedded down" into the ground and adjusted by means of a spirit level.

The only trouble with a clay floor, which extends from the mangers to the heel plank of the gutter, is from the fore feet of the cattle. We usually haul a little clay each fall and fill up any little depression made by their feet in moving about. Some of our cows have not made a depression two inches deep during the last four years.

Of course the hind feet of the cattle rest on the heel plank, and this plank also helps keep the whole floor perfectly dry. The clay is thrown in in thick layers and thoroughly tamped down with a maul. A little water sprinkled over the surface helps in the tamping process. We have used clay that had a little gravel in it and it works nicely.

The clay floor is not only cheaply constructed, but it makes an ideal floor for cattle to stand on. Our only objection to cement floors is that they are sometimes bad for the animal's feet, if not well supplied with bedding.

NEW THEORIES IN FEEDING.

While farming has long ago been reduced to a science, yet there are many things connected with it that we do not understand. It is difficult to explain why one animal will convert the greater part of its food into milk, and another, of perhaps the same breed, will convert its food into beef. It is mysterious, yet we know it is so. We may say the animals partake of different characteristics, which may all be true, but yet we are left in the dark as to the why and wherefore.

The first herd the writer ever owned contained, among others, two cows that were very dissimilar in their build and make-up. While they were fed alike, the one converted the feed into milk, and the other two into beef. Both were grade Shorthorns, but the one was of a dairy type, and the other a beef type. The one must have changed the protein to fat, and the other, the fat to protein. Or was part of the protein wasted in the one case, and part of the fat in the other?

The director of the New York experiment station conducted some experiments in that line recently, with remarkable results. A Jersey cow in fairly good condition was fed for 60 days on foods that contained a very

small per cent of fat; everything that she consumed was weighed and analyzed, as well as the liquid and solid excrement, and the milk. It was found that the cow gave 40 pounds more fat in her milk than she consumed in feed, and at the same time gained 30 pounds in weight, or one-half pound per day for the entire period.

The cow must have converted sugar and starch into fat, and the ability to do this may upset some of the balanced ration theories now being advocated.

There are many things about feeding that are yet unknown; many things that yet require careful study and research, as well as practical demonstration by repeated experiments. The truth is, we are just beginning to find out how little we know about the mysteries of nature as embodied in the process of converting provender of different kinds into milk. The longer we study a cow, the more we realize what a wonderful piece of machinery she is. If a cow can convert other elements into fat, why may she not be able to increase or decrease the solid or butter fat in her milk, according as the feed is varied, and contains much or little of the elements necessary for the production of butter fat? To demonstrate this has been the purpose of various experiments, but there are those who are inclined to discredit the results of these experiments.

The ability to increase or decrease the butter fat by means of different feeding, would not be any more paradoxical than for a cow to give more fat in her milk than she consumed, and yet gain in flesh while so doing.

O. J. VINE.

Veterinary Department.

CONDUCTED BY DR. W. C. FAIR.

Advice through this department is free to our subscribers. Each communication should state history and synopsis of the case fully; also name and address of the writer. The initials will only be given. When an answer is requested by mail it becomes private practice, and a fee of one dollar must accompany the letter.

Surfeit—Indigestion.—Yearling colt does not thrive. Sores on body; legs swell. L. A., Lansing, Mich.—Give one dram sulphate of iron, one dram ground gentian and one dram nitrate of potash. Also groom well. Keep him in a warm stable and change his feed.

Capped Hock.—When two-year-old mare came from pasture last fall the back part of one hock joint was swollen. Have not done anything for it, as I thought it would disappear, but it remains the same. She is not lame or stiff. E. E. O., Lapeer, Mich.—Blister hock with caustic balsam once a week.

Pneumonia.—My two-weeks-old pigs are taken sick. They breathe fast, have thumps and die. Sick about three days. I feed sow bran and corn. P. H. C., Pompeii, Mich.—Pigs take cold, which is followed by congestion of lungs and later they die from pneumonia. Keep them warmer and in a dry pen.

Enteritis.—Can you tell me what ailed my horse? When first taken sick he was weak, perspired freely, showed great thirst and was uneasy. Twelve hours later he had a second attack, showing great pain. Kept this up for 48 hours, then died. An examination showed four feet of bowel inflamed and of a black color. M. C., Marshall, Mich.—Horse died of enteritis. Could not have been saved.

Abscess—Dropsy.—Bunch came on shoulder of mare five years ago. Veterinary prescribed iodide of mercury blisters. They did no good. Bunch broke open and is movable. She had trouble on opposite side of shoulder but it got well. Has swelling under belly at present time. R. W. S., Mich.—Give her more exercise. Also give one dram iodide potash and one dram

CONSUMPTION CURED.

An old physician, retired from practice, had placed in his hands by an East India missionary the formula of a simple vegetable remedy for the speedy and permanent cure of Consumption, Bronchitis, Catarrh, Asthma and all Throat and Lung Affections. Also a positive and radical cure for Nervous Complaints. Having tested its wonderful curative powers in thousands of cases, and desiring to relieve human suffering, I will send free of charge to all who wish it, this recipe, in German, French or English, with full directions for preparing and using. Sent by mail, by addressing, with stamp, naming this paper W. A. NOYES 820 Powers' Block, Rochester, N. Y.



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A. C. BROSIUS, Cochraneville, Pa.

tincture digitalis in feed three times a day. Keep her bowels open and acting freely.

Indigestion.—My pigs are not doing well. Am feeding corn and make a thick slop out of middlings and bran. Feed all the corn they will eat. Pigs seem gaunt and I can get no flesh on them. They seem hungry and yet refuse corn very frequently. J. F., Canton, Mich.—Give your hogs enough epsom salts to purge them and soak the corn in salt and water before you feed them. If you can steam it, so much the better for the hogs. You possibly feed them too much.

Corns.—A seven-year-old mare is lame in forward feet. Blacksmith says she has corns. She limps very badly and cannot stand with any comfort. There are bloodshot spots in the inside corner of each foot up at the heel between the frog and wall of foot. Have burned pine tar and brown sugar in her foot and have turned kerosene oil into it a good many times but they do not seem to help. O. R., Indian Lake, Mich.—Corns usually come from pressure, from leaving shoes on too long and from contraction. Remove the cause and she will soon show improvement. When you have her shod keep shoe off inside quarter. Stand her on damp clay two hours a day. Apply a blister to coronet twice a month. Horseshoers make a mistake in cutting too much sole out of foot where corn is situated.

Cribbing—Chronic Indigestion.—A horse nine years old is a cribber by habit. Has not done well all summer. He had the scours and you told me to turn him on grass. Got some better; after summer's work I turned him out again and he was bothered by flies. His head was so badly swollen he could hardly see. I brought him to the stable and kept him there. His head is now all right. I think he was injured by some of the colts and is so poor and weak that he is no good. He has a good appetite and appears to be thirsty all the time. Drinks a little at a time. Food seems to digest all right, whether we feed corn or oats. Urine is rather dark colored. He is badly hide-bound. W. S., Ypsilanti, Mich.—Give one ounce bicarbonate soda, half an ounce ginger and two drams ground gentian in feed twice a day. Cribbing cannot be cured.

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A Pleasant, Simple, but Safe, Effectual Cure for it.

Catarrh of the stomach has long been considered the next thing to incurable.

The usual symptoms are a full or bloating sensation after eating, accompanied sometimes with sour or watery risings, a formation of gases, causing pressure on the heart and lungs and difficult breathing; headache, fickle appetite, nervousness and a general played out, languid feeling.

There is often a foul taste in the mouth, coated tongue, and if the interior of the stomach could be seen it would show a slimy, inflamed condition.

The cure for this common and obstinate trouble is found in a treatment which causes the food to be readily, thoroughly digested before it has a time to ferment and irritate the delicate mucous surfaces of the stomach.

To secure a prompt and healthy digestion is the one necessary thing to do, and when normal digestion is secured the catarrhal condition will have disappeared.

According to Dr. Harlanston the safest and best treatment is to use after each meal a tablet, composed of Diastase, Aseptic Pepsin, a little Nux, Golden Seal and fruit acids.

These tablets can now be found at all drug stores under the name of Stuart's Dyspepsia Tablets, and, not being a patent medicine, can be used with perfect safety and assurance that healthy appetite and thorough digestion will follow their regular use after meals.

Mr. N. J. Booher of 2710 Dearborn St., Chicago, Ill., writes: "Catarrh is a local condition resulting from a neglected cold in the head, whereby the lining membrane of the nose becomes inflamed and the poisonous discharge therefrom, passing backward into the throat, reaches the stomach, thus producing catarrh of the stomach. Medical authorities prescribed for me for three years for catarrh of stomach without cure, but to-day I am the happiest of men after using only one box of Stuart's Dyspepsia Tablets. I cannot find appropriate words to express my good feeling."

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DETROIT, SATURDAY, JAN. 29, 1898.

This paper is entered at the Detroit Postoffice as second class matter.

FEB. '98.

If the date on the yellow label on your paper is Feb. '98, your subscription expires with this number, and to avoid missing any numbers renewal should be sent in at once.

We hope your experience with The Michigan Farmer has been satisfactory, and that we may receive your renewal at once.

How about that neighbor who does not take The Michigan Farmer? Can you not persuade him to order with you this time according to our proposition sent you? Try it. It will help him, help you and help us.

EXPORTS OF AGRICULTURAL PRODUCTS.

The figures of the December report of the Bureau of Statistics of the Treasury Department exhibit very clearly how largely the farmers of the country have contributed to the increased volume of exports of American products. The comparison of the exportation of farm products for the first eleven months of 1896 with the corresponding eleven months of 1897 shows in almost every case a marked and gratifying increase in favor of the year just past. In a few instances the exportations have decreased, but such cases indicate a gain rather than a loss to the farmer. In the majority of cases the gain has shown an increased production and increased demand abroad, thereby inducing shipment, and consequently bringing a return to the farmer. In sheep, for instance, the number imported in 1897 has been less than in the year preceding, but this is well and satisfactorily accounted for by the knowledge that the sheep and wool industry in this country has again revived, and that farmers are gladly hanging on to what sheep they have and endeavoring to get more, while other farmers are anxious to engage in this branch of agriculture. The greatest increase, both as to bulk and value, has been in corn and wheat. The total increase in the value of breadstuffs exported in 1897 over 1896 has been \$62,000,000. The following table shows a comparison of the exports of some of the leading farm articles for the eleven months of 1896 and 1897:

	1896.	1897.
Cattle	\$33,621,000	\$35,498,000
Horses	3,282,000	5,170,000
Barley	5,555,000	6,535,000
Oats	6,798,000	11,362,000
Rye	2,038,000	4,362,000
Butter	3,578,000	4,412,000
Cheese	3,612,000	5,312,000
Vegetables	1,678,000	2,331,000

THE POTATO CROP.

To the Editor of The Michigan Farmer.

I wish to dispose of my potato crop to the best advantage possible, so I come to you for statistics and advice. What was the yield in bushels of the crop of 1896? How much short of the '96 crop is the '97 crop? How does the crop of '97 compare with that of '87? How near the price of '87 may we expect the crop of '97 to come? Do present conditions and the finances materially affect the future price of this crop, also present prices? Would you advise selling now or holding for future prices?

In January, 1888, potatoes were worth in Greenville, this State, 70c per bushel. In March they went up to 85c; in May to \$1.12 per bushel. Now, January 10, red are worth 50c; long white, 55c; round white, 59c. Buyers may in two weeks they will be 10c less. Now, if you can give us any help in this potato deal it will be highly appreciated.

B. B. SAMPSON.

Montcalm County, Mich.

It is doubtful if precise answers can be given to all of the above questions. Roughly stated, the crop of 1897 is estimated at two-thirds that of 1895, and three-quarters that of 1896. The average yield per acre in 1895 is given by the Department of Agriculture as 100.7 bushels; 1896, 86.8 bushels; 1897, 64.6 bushels. In quality the crop of '95 is rated at 94.8; '96 at 89.2, and '97 at 81.3. In regard to the acreage and yield of potatoes no estimates were made by the Department for the years 1889, '90, '91 and '92. The estimates from 1893 to 1896 inclusive are as follows:

	Acreage.	Yield, bushels.
1893	2,605,186	183,034,203
1894	2,737,973	170,797,338
1895	2,954,952	297,237,370
1896	2,767,465	252,234,544

As showing the difference in price in the various years, the small crop of 1893 was valued at \$108,661,801, while the immense one of 1895, by far the largest ever grown, was only valued at \$78,984,901. That of '96 was valued at \$72,182,350. It is doubtful if any other staple crop is subject to such wide fluctuations as potatoes.

As to the crop of 1897, no estimate has yet been published by the Department, except in the way of percentages. Taking the acreage of 1896, and the estimate of 64.6 bushels, we would have a yield of 176,117,760 bushels.

There was probably an increase in the acreage, but to some extent this will be offset by the low percentage in quality, which means a decrease in marketable potatoes.

If the above figures are approximately correct, the crop of 1897 was the smallest since 1892, except the very light one of 1894. These are the best figures available, and are probably near enough to the actual facts to furnish a good basis for estimates on supply available for the crop year.

In considering that point it must be borne in mind that closely connected with the consumption of potatoes is the relative cheapness of breadstuffs, and the condition of the laboring classes. The price of the crop of 1896 was further depressed by the cheapness of flour. The great increase in the consumption of beans has also affected the value of potatoes to some extent. When breadstuffs and beans are bringing a good price, the tendency is toward an increased consumption of potatoes. But potatoes, while very popular with the masses, and a very healthy article of diet, do not contain much nourishment; and, therefore an advance in price always cuts down consumption when a cheaper substitute can be found. At present breadstuffs are relatively as high as potatoes, and beans are also advancing. This will strengthen potatoes. Stocks held at distributing points are not heavy, the high price last fall keeping dealers from stocking up, and any expansion of the demand for consumption would soon clean them out. There is no doubt, however, that at

present prices the consumption of potatoes is being limited, and advancing values would limit it still more.

It looks to us as a pretty even thing for the next month as to whether prices go up or down, and that any change must be a small one. We do not look for 75-cent potatoes in the country until spring, and not then if the amount in first hands happens to be large. Of course changes in conditions may take place which would exercise an important influence on prices, such as higher prices for wheat, flour, beans and other farinaceous articles of diet. But it looks very certain that, in view of the light production of the crop, the fact that potatoes cannot be held over from year to year like wheat and the good prices competing articles are bringing in the market, that an advance in values is far more probable than a decline, and when that advance sets in it is likely to be greater than present prospects promise. It is always the case with the potato market that it is sure to go higher or lower than had been thought possible once it turns either way.

CUBAN AFFAIRS IN CONGRESS.

The past week has been notable in Congress for very acrimonious debates over the question of recognizing the insurgent Cubans as belligerents. It is a question which should have been discussed calmly, and all points of the subject carefully and candidly considered. The position of the United States with regard to her duty to Spain, as a country with which we have treaties and are at peace; our rights regarding commercial intercourse with Cuba, and the protection of the lives and property of American citizens resident on the island or interested in commercial enterprises in Cuba, should all be given due consideration. Spain has certain rights under the treaties she has with the United States, and also under the laws governing the relations of nations to each other. All these points should be made clear to the congressmen themselves, and through them to the people at large, so that any action taken may be strictly in accordance with the plighted faith, and the rights, duties and privileges of both the United States and Spain. We believe that a full understanding of the points mentioned would be followed by a general agreement among congressmen and citizens as to the proper course to be pursued by our government in connection with the Cuban rebellion.

But such a discussion appears to be just what some congressmen do not want. They are intent upon using the subject to make a reputation for themselves as the friends of oppressed humanity, and deliver frothy speeches in very loud tones so as to convince their constituents of their hatred of oppression, their great sympathy with people struggling for liberty, and their willingness even to involve the country in a war if necessary to win the favor of the voters in their districts.

In the event of war, however, these gentlemen would be entirely safe from danger. The fighting would have to be done by young men, and only their families would know its afflictions in case of their death. When the war was over, these same congressmen would be arrogating to themselves a high place in the confidence of the people because they had done what they could to bring it on while safe in their seats as representatives. They would not know anything of the horrors and the hardships of war, and would therefore be willing to sacrifice every constituent of legal age rather than have the country lose in the struggle. They would be known as the friends of the oppressed because they

had expended so much wind, in a safe place, in advocating their cause.

A case in point is that of Mr. Berry, of Kentucky, who is reported to have said in a discussion over Cuba:

"After 300,000 Cubans have gone down to their death during the last four years it is absurd for members to stand on the floor of the house and deny that a state of war exists on the island today. I don't fear war. I think a little blood letting would be good for us. Let Spain fire on the American flag just once, and the flame will be kindled that will free Cuba."

Other members were equally as belligerent though not so outspoken. They were not confined to any political party, but represented all of them. Each one of them knows he can start to Cuba tomorrow, cast in his lot with the insurgents, and aid to the extent of his ability in freeing that unhappy island from Spanish domination, but they will never take one step in that direction. The only weapon with which they will ever assail the Spaniards is the one used so effectively by Sampson upon the Phillistines. They will never do any blood-letting themselves, or contribute any of their own in any struggle, whatever the cause.

These men who talk so glibly about war will be missing when the time comes to take arms and fall in. It will be the young, ardent men who will march to the support of the government, and who will bear the hardships, suffer the wounds and death, and whose remnants will come back to their old homes maimed and crippled for life, or dying from disease. The man who wants this country to rush into war is neither a good citizen nor a patriot. He is simply a demagogue trading upon the feelings and sympathies of the people for his personal glory and advancement.

BEET SUGAR PROSPECTS.

A report from Washington says that the Department of Agriculture is fearful that the great interest shown in the subject of beet sugar by farmers all over the Union will culminate in a craze which will lead to disastrous results. There is danger that sections in which success in the cultivation of the beet can hardly be looked for, will rush into the business, and their failure will affect the whole business disastrously. It is known beyond peradventure that beets grown in certain sections and localities will not contain a sufficient percentage of saccharine matter to make their cultivation profitable for sugar making purposes. It is absolutely necessary, therefore, that the question of the ability of a certain locality to raise beets rich enough in saccharine to insure success, should be settled conclusively before farmers engage largely in the business, or factories and refineries are erected. The factory must be close to the point where the beets are grown, or the venture will surely be a failure.

It is a well ascertained fact that the areas where sugar beets can be produced of a high average of saccharine contents, are sufficient to grow double the amount required to manufacture all the sugar consumed in the United States. It is therefore entirely unnecessary to attempt to grow them in sections not naturally adapted to their production.

In this connection it is of interest to learn that the statistics of sugar consumption in the United States for 1897 was so great that there need be little fear of over-production for many years to come. The consumption in the country during the past year, according to official figures, reached the enormous total of 4,192,520,000 pounds or over 2,000,000 tons, showing the very large increase over 1896 of 272,354,000 pounds. Of this total consumption only 41,000 tons was from beets grown

in this country. The total United States production of sugar, including beet, cane, maple sugar and sorghum was 336,000 tons, leaving a total of 1,760,000 tons, or 3,521,000,000 pounds, to be purchased abroad. This is what the Agricultural Department wants to see raised at home, and the only fear is that attempts will be made to establish factories, at large cost, in sections where the beets raised produce so low a percentage of sugar as to be unable to compete with localities more favored by reason of rainfall, climate conditions, etc.

BE CONSISTENT.

The annexation of the Hawaiian Islands in face of the undeniable fact that the masses of the inhabitants are utterly unfit for self-government would be a flagrant betrayal of the principles upon which the political institutions of the American people are founded. A free people cannot admit this horde of degraded and degenerate races into the body of their population without assailing the very bases of their government.—Philadelphia Record.

The Record is incontestably right in protesting against the admission of a horde of degenerate and degraded people as American citizens. We believe Americans have a right to protect themselves against the results of the incorporation of such undesirable elements into the citizenship of the country. But, while objecting to such action in the instance of Hawaiian annexation, the Record strenuously opposes any attempt of the government to regulate the character of the immigration seeking our shores by the thousands every year. Is an undesirable citizen less so if he is an immigrant than if he became a citizen through annexation? We think there should be some restriction upon citizenship, whether from annexation or immigration, and while one objection we have to the annexation of Hawaii is because of the character of a large part of its population, we shall object to the same classes of people, or others as undesirable, coming into the country as immigrants. We cannot see how their admission can be consistently opposed in the one instance and favored in the other.

TWO-DAY INSTITUTES.

ST. CLAIR COUNTY.

The so-called county round-up institute was held at Macabee hall in Smith's Creek. Those present could indorse the famous dispatch, "We have met the enemy and are theirs"—the hall, kitchen, dining room and homes of the people being open to their guests. C. S. King, of Port Huron, presided and was promoted as a court crier. Thursday forenoon owing to the rain but few were present. W. W. Allen gave an address of welcome and E. W. Harris, of Port Huron, responded. After dinner E. A. Croman, state conductor, presided at the question box. Prof. C. F. Wheeler talked on "Smuts of Grain," saying they caused losses estimated to average eight per cent, equalling \$30,000 for the oat crop of St. Clair county alone. The spores are on the seed oats and sprout and grow up through the stem to the head, ruining the grain. Water, 132 degrees hot, is best treatment, though copper sulphate is used. Barley and wheat smuts are similar, but corn smut is different; it is harder and has more vitality; it attacks any part of the plant and shows its presence 14 days later. No cure is known, but avoiding fresh manure, and rotation of crops diminish its effects. John Ruff, of St. Clair, gave a good paper on "Silos and Ensilage." He commended the round silo, separate from barns, as cheaper, stronger and keeping the ensilage better, there being no corners nor rats. Corn ensilage gives carbohydrates in best form, and clover hay, bran, etc. give protein, cows requiring about five pounds of the former to one pound of the latter. Prefers corn ensilage and clover hay to the reverse, as cows will not eat corn stalks with clover ensilage. Wets top six inches deep and covers with tarred paper. At present prices materials for a 120-ton silo will cost

\$90. Six acres of corn ensilage equals 33 acres of timothy hay.

E. A. Croman talked of "Profits in Hog Raising." Uses pure bred stock; has V-shaped hencoop pens for sows to farrow in; pigs need light, warmth and dryness; bed well and use plaster; feeds skim milk, pea meal and ship-stuff till six months old; finishes with corn, selling at eight months old, weighing 200 pounds. Lard hogs at that age at three and one-half cents a pound are more profitable than Canadian bacon hogs at 18 months old at five cents a pound.

James Dunn, of Emmet, discussed "Profits of Farming Under Present Conditions." It depends on the system; not all are dairymen nor hogmen; he raises grain, forty acres giving 1,000 bushels, at a profit of \$578.25. Any one on 80 acres of land that is only holding his own has something wrong with his head. We should study our farms and see what is needed. There is a great deal in thorough tillage, improved machinery and energy. The western stockman builds a reservoir, covers it over and puts in a water trough; the steer comes up and sees nothing in it, but if he applies his weight the water fills the trough; so if the farmer applies intelligence and energy to farming there is something in it for him.

A paper on "Can the apple orchards of St. Clair County be made profitable?" by C. A. Hulbert, of Armada, was read by Prof. C. J. McCormick. The writer thought they could by wise care and culture; the means of transportation and preservation are now widely extended and the demand increases for good fruit and fruit products.

In the evening E. A. Croman talked on "The Creamery," advocating the co-operative system. Wm. W. Allen gave an excellent paper in favor of "The reason why the proposed county road system should be adopted." He held to the argument of using but one-tenth of one per cent county road tax per annum, giving \$17,890 for the county, of which the cities would pay \$8,300, but all would be used on the country roads, gradually reaching all parts of the county. All agreed the present system was not satisfactory. Some thought the present assessment for highways could be reduced by the amount levied for county roads, and better results would be secured, while others opposed the plan and favored better use of present means.

Friday morning C. P. Goodrich, of Fort Atkinson, Wis., spoke on "Rotation of Crops," favoring a three-year rotation with a permanent pasture. D. Foley, of Mt. Salem, read a good paper on "Are sheep more profitable to the farmer than other live stock?" He gave figures for each class, sheep, cattle, hogs and horses, showing the superiority of the sheep, besides requiring less care and risk.

The ladies' section was held in the lower room of the hall, Mrs. King, of Port Huron, presiding. Mrs. Barney Smith, of Clyde, read a paper on "Adornment of Rural Homes." Miss Louise Miller, of Detroit Training School, talked of "Some Problems of Life." Mrs. Wm. Mason, of Kanoka, read a paper on "Odds and Ends." About 150 ladies were present and each topic was well discussed.

After dinner C. P. Goodrich talked on "Feeds and Feeding for Dairy Cows." He referred to the progress of his own county, saying in 1870 sixty per cent of its farms were mortgaged, now but nine per cent. Last year the cows brought in over \$1,000,000 and the farmers were worth three times as much as in 1870. Food must be palatable, digestible and healthful. Have dairy stock; give good care; feed each cow to her full capacity; give variety of feed the year round.

Prof. C. J. McCormick, of Smith's Creek, read a fine paper on the "Relation of Farmers to the Public Schools." The farmer is the corner-stone of civilization. In its struggle with barbarism agriculture and education were on the side of civilization. Our European forefathers developed agriculture and planted education. The district, the parent, the children, the teacher, each have duties and rights. Justice must prevail between them to secure a good school. Farmers' children attend them and go forth to higher positions. There is no aim too lofty and no mark too high for the barefoot boy from the rural school.

Miss Miller followed with "A Talk to Farm Children," based on a corn plant, but reaching flowers, grain, birds, insects and soils. About 500 were present this afternoon. In the evening Prof. B. A. Hinsdale, of Ann Arbor, discussed "Rural Schools." Some of his

figures were ten years behind those accessible, but he argued in favor of lengthening the time of rural schools, consolidating small schools, and longer terms for teachers. About 45 per cent of pupils are in rural schools.

Hon. H. M. Zimmerman, of Marine City, gave the closing address on "The relation of the State University to the people of the State in general." He said it was the crown of our educational system and its benefits widely extended. It is accessible to all and about 60 per cent of its students are from the State. The cost of operation would be nearly the same if none from outside were present, so their fees are nearly clear gain; to raise them would reduce income. The University should remain open to all and with all on a level as now. We do not want an institution like Yale or Harvard; it should be sustained by the people and not by bequests and fees, thus becoming exclusive.

B. E. B.

A correspondent, O. H. C., situated at Ewen, Ontonagon County, writes as follows: "The land here is mostly red clay, is much more difficult to till than sandy or gravelly soil. If any writers have had experience with red clay would like to hear from them. Peas do well, corn not at all; potatoes on the sandy knolls do well." Our correspondent will probably find this red clay all right for spring wheat, oats and rye; also good grass land, on which good crops of hay can be grown. During the last session of the Legislature The Farmer urged that a small appropriation be made for an experiment station to the Upper Peninsula to help settlers there solve the problem of successful farming, but the project was antagonized by members whose constituents are enjoying the benefits of such a station. We still think there is no portion of the State where a station would be of more benefit than in the Upper Peninsula. And the farmers there are just as much entitled to it as those in any other section. Such benefits should be general or entirely eliminated from the institutions for which appropriations are made.

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The Household.

CONDUCTED BY MRS. ELLA E. ROCKWOOD.

We should be pleased to have any of our readers who take an interest in household topics, send in their views and opinions upon any subject which is under discussion, or which they wish discussed. The invitation is general, and we hope to see it accepted by many. Address all letters for The Household to Mrs. Ella E. Rockwood, Flint, Mich.

LEAVING THE FARM.

BY H. S. BLANDING.
The last load has gone?
The old chair with one arm—
And my heart is fast beating,
For we're leaving the farm.
The farm, the old farm!
Where we've lived for so long.
Is it all for the best?
No, there's something gone wrong.

They said it was drudgery
And fruitless strife,
To be digging and delving
Here all of one's life;
When if we would but
To the city go
Money and wealth
Would freely flow.

So George, he urged father,
And nothing would do
But to sell the old farm;
And I must go, too.
I'll stay a few minutes—
Be the last one to go.
The broad fields and shade trees
I do love them so!

I linger behind, yes,
I'm lingering still,
And watching the wagon
Now mounting the hill.
I'm thinking and pondering,
Will it all come to pass?
Will money come freely
Like dew on the grass?

I am younger, I know,
Than father and brother,
And they tell me I cling
To the farm, just like mother,
Who in vain to the bargain
Withheld her consent
To leave the dear place
Where young days had been spent.

But it's done; yes, it's done!
The last paper is wrought,
And forth to the light
The old deed has been brought
From the place where it rested
For many a year.
Kind friend, did you ever
Hold anything dear?

I think I can catch them,
They'll not be far off,
I'll run down to the spring,
Where lies the old trough
I have filled up so often
For Billy to drink.
Can I ever be happy
Again, do you think?

I'll run to the meadow,
But how I miss Rover,
He's had his last romp
In the sweet smelling clover,
Where we've chased the young wood-
chucks
And rabbits in glee,
And captured the squirrel
Before gaining a tree.

I am straining my ears
For the last good-bye sound
From robin and wren,
As their voices resound
In the tall giant oaks,
To their mates they are calling;
And my pleasures of hope
Are now rapidly falling.

Now, reader, you think
I am only a boy;
But I've lived 'mong these scenes
With feelings of joy,
And now as I'm leaving
I say in my heart—
Dear scenes of my childhood
Forever we part.

HOME CHATS WITH FARMERS' WIVES.

MENDING UNDERWEAR.

At this season of the year there is more or less mending to be done upon the woolen underclothing. If these garments go through the first winter without a break they are pretty sure to begin to show signs of giving before the second begins to wane, and the careful housewife watches closely for these indications that she may be on hand with the implements of her trade—the needle and thimble, to forestall them.

I do not believe there are many women who have a natural liking for mending. Most of us have an aversion for the task, yet since it is one which confronts us week by week there is no use trying to shirk it. Like certain other bugbears, it isn't half so bad when boldly attacked as in anticipation, and when once the dreaded job is under way—when the pile at our left grows smaller and the one at the right assumes more imposing proportions we really get interested in our work and the task which seemed so discouraging is done almost before we know it.

A thin place in a woolen garment may be "stayed" and made to wear considerably longer before a hole actually makes its appearance by carefully darning underneath, through a piece of thin cloth. Take yarn as nearly the color of the garment as possible and

darn back and forth from the wrong side, catching through the opposite side as little as possible. Let the darning extend well out upon the firm cloth on all sides. This is an excellent way in which to treat socks and stockings. Heels and toes thus reinforced will wear much longer than without. It is all the better to treat them in this manner before they begin to get thin. The darning is sometimes done with cotton yarn since it wears better than wool. When the knees have become so badly worn that a patch is necessary, cut the worn place away entirely and set in a new piece. This may be taken from the best part of another garment of the same material which is worn past repair. Be careful to cut out all the thin part, making the opening straight with the grain of the cloth lengthwise and straight across at top and bottom. Cut in very slightly at each corner (as the fabric being knitted pulls out easily), and sew in the new piece firmly and smoothly, seams on the wrong side, of course. Thus repaired, the garment presents a much better appearance than when the patch is basted underneath and the edges of the outer part hemmed upon it. This is also true in mending other fabrics.

In mending men's drawers where the seat is badly worn, a diamond-shaped piece of the same material large enough to completely cover the worn part may be hemmed upon the outside with points at the seams. When firmly and smoothly fastened in position the worn part may be cut away and the cut edges hemmed down, or it may remain.

Undershirts usually wear longer than drawers. The ends of the sleeves will be first to give out, and the seamed parts should be removed entirely and replaced with similar pieces from the ends of old drawer legs, since the latter will be in good condition when the rest of the garment is useless. Reinforce the parts under the arms by placing a piece of thin cloth underneath, then darn back and forth thoroughly.

Such a garment will cut to advantage for a child, and a good warm skirt may be fashioned from one which is badly worn, by cutting off the desired length from the body part of the shirt. Make a plain round yoke of some strong cloth (it need not of necessity be wool), to fit the hips and sew the skirt part to it, holding most of the gathers in the back. Turn up a hem (once only) and baste in position on the wrong side, then put a row of feather-stitching on the right side, catching through both thicknesses, using some bright-colored yarn. The yoke is an excellent feature on any undergarment. It should be seamless and made double, with an extra facing (bias) stretched around the waist; or it may be put upon a band.

AN OPEN LETTER TO NANCY JANE.

Dear Nancy Jane: I was not frightened in the least; to prove it I am coming again. I want to say that I would not have been quite so caustic in my remarks, perhaps, had I not seen a mother feed her seven-months-old babe two cups of strong tea with crackers at the dinner table only a short time before, besides a few mouthfuls of everything else that was on the table.

What I understood by feeding babies at the table was to feed them what grown people eat, not food prepared especially for them; that is another thing altogether. But I still decidedly object to either white bread or crackers. Bread made with yeast is not fit to feed to a baby, because it is very liable to sour, and the Household editor gave the reason why crackers should be avoided; they are constipating. If the nourishment afforded by the mother is not sufficient, then milk from a young, healthy, new milch cow should be given, and in most cases I think it is better than mother's milk anyway, providing proper care is taken in preparing it and keeping the bottles clean. And I want to say right here, do not allow the baby to form the injurious habit of nursing every few minutes, or every time he puckers up his face. Commence on the start to feed at regular hours and you will be surprised how quickly he will learn to look for food at that time and no other. Dr. Henry Chavasse says in his book entitled "Wife and Mother," which ought to be in the hands of every woman: "I wish to call especial attention to the fact that farinaceous foods of all kinds, before the child commences cutting teeth, are worse than useless—they are positively injurious; they are perfectly indigestible and may bring on—and frequently do—convulsions. A

babe's salivary glands, until he is six or seven months old, do not secrete their proper fluid—namely, ptyalin; consequently the starch of the farinaceous foods is not converted into dextrine and grape sugar, and is therefore indigestible and useless, and may bring on pain, convulsions and even death. This is the principal cause of the frightful infant mortality at the present time, and which is a disgrace to any civilized land."

Doctors do not always hit every case it is true, but the opinion of an old experienced physician who understands the workings of all the various membranes, glands, muscles and tissues of the human body would be apt to be nearer correct than that of any person not at all familiar with them. And I still hold that feeding a baby before it has cut any teeth is unnecessary and injurious. If a proper milk diet is provided they will be much better off and just as "good." If you will stop and think you will see that their eyes sparkling when the dishes are set before them is not a sure indication that what they contain is good for them. Their eyes sparkle for lots of things that you know to be harmful, and it is so, for that matter, with us grown people. It is human nature to want most what we should not have. I have seen my husband's eyes sparkle at a big mince pie about bed time, but I was almost sure it was not good for him, for all that. However, "a man convinced against his will is of the same opinion still," and I suppose the same may be said of women, so after this I shall let the sisters feed their babes sauerkraut if they want to without a word of protest.

I enjoyed the mistakes and failures very much. "Ellen's" letter was exceptionally good; we should like to hear from her often. I, too, have got tired of saving paper rags and old rubbers. It does not pay.

Aural, E. S., ended her story in the most interesting place, just as the story papers do. We want to know how "Kizzy" came out, of course.

Mrs. Grace, I can sympathize with you in your failures in the squash-growing and flower-raising line. I learned to have my flower garden securely enclosed with poultry netting, and have no trouble with chickens now.

I will try and prescribe for Viola Park's calla. Probably it is too late now to do anything with it, but when the first of June comes turn the pot down, out under the porch or some place out of the sun, give no water, and let it rest till September 1st. Then slip it out of the pot, shake all the dirt off the roots and repot in an eight or ten-inch pot (the soil from a wet, swampy place is best), and then after they commence growing, keep the pot sitting in a dish of water. I put in fresh, hot water every morning and I never had any trouble raising callas. They want rich, mucky soil and plenty of water and heat. Most failures are caused by keeping them too dry.

To "Troubled Sister" I would like to offer some words of consolation. But I fear her trouble is too deep for any words of mine to comfort. However, I will say, "Do not cross a bridge till you come to it." You may never be called on to wear a bustle after all. Wishing you all a Happy New Year, I will close—at last.

NELLIE LOUISE REED.

HOW PETER SOLD THE PAPER RAGS.

After reading about Ellen, of Jackson county, selling her paper rags, I will have to tell about ours. I say ours, because Peter sold them.

I had been sewing carpet rags and of course had a lot of paper rags, as we have three girls besides myself to help make carpet rags. It was one nice afternoon (Saturday), and we had the work all done up and the children had all gone to their grandma's to spend Sunday. Peter came in and said we had better have supper early and we would go up town. Just as I was commencing to get supper I heard some one knocking. I went to the door and there was a rag-peddler. Well, I thought of that nice lot of rags, and I thought of the way they cheat every time, and I was afraid he would want to stay all night and over Sunday, so I told him I did not have time to bother with them. Just as he was driving away in came Peter, and asked me if I had sold my rags. I said, No, that if I did sell them he would beat me so on the weight that all I would get would be a tin cup. Of course, man fashion, he stuck up his nose at that. Then I said, "Now sir, if you want to sell those rags I will get them down for you, and when he comes back (one of our neighbors lives on a lane which

turns off the main road in front of our house) you can hail him." I told him that the rag man would give me a cent a pound in cash or that I could take part trade.

Well, he was ready for him with the rags. The peddler made the first bagful weigh twelve pounds (he rested it against his knees instead of lifting it free) which roused Peter's ire. A confab ensued which ended by their going to the barn to weigh them upon the Fairbank's scales. They were gone so long the hired man asked me if he hadn't better go and see how it was faring with Peter. But come to find out the peddler was so afraid Peter would think him dishonest, that he wanted to test his scales by weighing some other bags which were standing about the barn. Peter told him he guessed he'd better weigh the rags on our scales as he (the peddler) was rather short and couldn't hold them up good in weighing them on his own. There proved to be seventy-five pounds, and after taking thirty-five cents in trade he finally, after a good deal of "kicking," paid us the balance in cash and departed. We went to town all the same, and I hunted up a friend and we went to the ice-cream parlor on the paper rag money; for of course Peter, like a dutiful husband, gave me the money, and he came in for his share of the treat.

MRS. PETER.

(I have always thought it well to have a man around when the peddler weighs the paper rags, for they frequently take advantage of women, evidently knowing how little some of us stand up for our rights. The average farmer's wife would prefer giving the peddler half the weight to saying a word in remonstrance, and wouldn't know whether his steelyards were correct or not anyway.—Household Ed.)

AN UNKIND HUSBAND.

We have taken The Farmer a long time and like it very much. There is one thing I would like to have discussed. I see every little while how and what a woman should do, how she should dress and look to please her husband. Now, I think we ought to change it around a little and give the men some advice. I know women who want to take The Farmer but their husbands say No. And it is this way in other things. These men ought to be made to give the women a chance to have their say in some things. There are men who make the wife a perfect drudge. They go to lodge or to places of amusement and keep a weakly little wife at home to have a good meal ready for them when they return. I know women with such husbands who never go anywhere nor see anybody, but work, work every minute. While he reads the paper to himself of an evening, she sits and knits or sews. They are out of debt and have 200 acres of land, but she is discouraged and down-hearted. She never hears a word of encouragement or gets a bit of love, at least that is apparent. If her work isn't done when night comes he wonders what on earth she has been doing all day.

Of course, this is not the way it is with all women. I know of one in particular (and she isn't a second wife either) who has her fine clothes, diamond rings and gold watch. She hires her work done and has money to do with as she chooses and no questions asked. She goes with her husband on pleasure trips and seems to enjoy life greatly.

I hope this will be published, for if the men should read it I believe it would do some good.

MRS. L. O. WELLS.

(Is not the above an exceptional case? We cannot believe there are many men who treat their wives in the manner described. That there are some selfish and heartless none can deny.—Ed. Household.)

Do not use that abomination, a feather duster. It flicks the dust into the air to settle again and the process of dusting can be repeated ad libitum. A damp cloth holds the dust within its folds and when shaken out of doors we are rid of it.

Mutton, so lightly esteemed by many, is the most easily digested of all meats, with beef next in order. The woolly taste may be removed from mutton by covering it entirely with fresh buttermilk and allowing it to stand for a few hours. A longer period in the milk will not harm it in the least. Indeed buttermilk is an excellent preservative of meats of all kinds, especially in hot weather.

Coughs, colds, pneumonia and fevers may be prevented by keeping the blood pure and the system toned up with Hood's Sarsaparilla.

SPENDING THE INCOME.

How does it go, the money that comes in from the sale of what the summer's work has brought us? And this year, thanks to the price of potatoes, it is rather more than usual with us, in northern Michigan.

Can we not have our money do double work, bringing us the necessities of living, and after it has left our hands helping to build up our towns, making prosperous places of them? For surely their prosperity will react upon the farmers around them.

But that isn't what we do. We exchange with the grocers the produce we cannot possibly obtain cash for, and then when we have money to buy with we send to the "great original wholesale grange store, Chicago," for our supplies of everything, from a saw mill to a box of matches, "because we get them cheaper," we say.

But do we? There may be a few cents difference, but we must buy the catalogue, write generally more than one letter, and pay the freight. This added would make the article about the same as we could purchase it at our own county stores, and we do not have the chance of seeing the goods and making a personal selection, and that is surely worth something.

Last summer we of this Household considered a crock of poor butter from the consumer's point of view. Then A. H. J. saw the pathetic and pitiful point of view of the woman who made the butter. All honor to the kindly heart that stands up for a sister woman, even if she does turn good milk into poor butter, but there is still another person to be considered; the poor grocer who buys and sells it. He must buy her butter, for perhaps that woman may have cash to buy with sometime, though he finds out afterwards that when she does she buys in Chicago. And he may realize her necessities and pity her as A. H. J. did.

Last summer I saw in the cellar of a grocery in one of our northern towns, a stack of butter in rolls and prints three feet high, thrown down on the cellar floor, utterly unsalable. My sympathies were with that grocer, for I could imagine from his worried looks there was a bill due next week, little money coming in, and many customers wanting to be trusted. Also the people he had bought poor butter of, and trusted, too, were sending their money to the "great original wholesale," Chicago.

We all growl more or less about the wealth of the country getting into the hands of the few. What are we doing to help along that state of things?

HULDAH PERKINS.

NOT AS WE WOULD LIKE TO DO IT, BUT, AS WE CAN.

One of our Household friends writes that she has been an invalid for many years although at present able to do her own work by being very careful to avoid over-exertion.

She says: "I cannot always do my work as I would like to, but try to keep it in hand as well as possible. This is how I manage in summer to do my churning and washing the same day, as this is sometimes unavoidable. I rise very early and build the fire, putting the wash boiler over and in it the white clothes which have been soaking in clean water since Saturday evening. Every member of the family is expected to put on clean clothes and take a bath Saturday evening, and the beds are all changed Saturday morning. Every garment is shaken out of doors, by myself, men's socks, overalls, shirts, etc., being put into a tub of water by themselves. As rubbing is with me a "lost art" I scald the clothes first in water in which is placed a tablespoonful of turpentine.

While the first boilerful of clothes is heating I scald the dasher, and as the cream is already in the stone churn I usually bring the butter before they are ready to take out. While the next lot is boiling I take up the butter, and salt it. In this way I usually have both pretty well along before breakfast.

As farmers frequently have unexpected company to dinner on Monday I always put away dinner for wash day on Saturday when doing my baking. Sometimes one dish is baked pork and beans, when it is not so hot but that beans will keep that length of time, but the meal is always planned for, and so also is Monday's supper.

There are so many things we would like to do yet our strength will not always permit. The fear, yes, fear, that our neighbors, or perhaps our

mother-in-law will accuse us of being "slack" housekeepers often spurs us on when we feel we are going beyond our strength. Many a tired woman works on and on while feeling that she cannot take another step. Yet the dishes must be washed and the floor swept. If she should yield to the impulse to let everything go and throw herself prone upon the bed Mrs. — might come in all cool and quizzical, take note of things and go away to say to some one: She is so slack! I was in after dinner and she was lying down while her floor —! And so for the lack of charity on the part of the woman who is capable of doing her work perfectly, not allowing a speck of dust within her doors, the weaker woman goes on burning life's candle at both ends until her children are motherless and her husband wifeless and home made desolate.

O, if women would learn to be more wise, more careful of themselves, and care less of what people say about them! We should work not as we would like to, but as we can.

A CHAPTER OF DON'TS.

I have just been reading some of the mistakes made by members of the Household, also in the farm department, and I was very much interested, for it not only does one's soul good to confess, but those who listen say to themselves: "Well, there, I am not the only one who has blundered." There is a mutual sympathy which goes out to each other when we read these mistakes, and, an experience meeting of this kind is instructive, for one can readily see the mistakes to avoid.

The writer hasn't been free from making mistakes, and will bring an offering in the form of resolutions, or a chapter on don'ts for the coming year. The advice in the first half of the chapter may seem unnecessary, but think of the many accidents which occurred last year, which might have been prevented if our American people would take time to think, and discipline themselves to do their work with regard to safety.

Don't, if you use a gasoline stove, fail to take all necessary precautions in using it, for many lives might be saved during the year if all did this.

Don't take the coal oil can to pour oil in the stove. Better turn it into a cup; it may take a moment of your valuable time, but may save an explosion.

Don't set pails, kettles, tubs or any receptacle which is filled with hot water down without immediately covering it.

Don't leave young children at home alone; and never be guilty of locking them in the house; it has cost many a child's life.

Don't have cough syrups, cordials, etc., on the same shelf with ammonia, carbolic acid or liniments. Better have a cabinet made, and keep the poisons locked up, for when one gets medicine for those who are taken violently ill, they are liable to make serious mistakes.

Don't leave cisterns or wells without the covers securely fastened.

And now a few don'ts in another direction.

Don't fail to teach the children to be kind and courteous to elderly people, for this is a beautiful trait of character.

Don't make the old people feel that the house is too small for them. Everything one does for the comfort of others, should make their own life better.

Don't tell family affairs to even your best friend. You will make them miserable, and lower your self-respect.

Don't repeat gossip, for it is like a cyclone. It is destructive in its course. One can hardly estimate the mischief done.

Don't fail to take plenty of good magazines and papers. When one is tired, it is refreshing to spend 10 or 15 minutes in reading.

Don't forget to be cheerful, for it is the secret of keeping young.

Another, and most important don't is this. Don't grow old. Keep young for the children's sake. Be careful about the toilet. Don't wear clothing that is out of date, that the children may have all, for they like to see Papa and Mamma well dressed. Go with them to places of amusement.

Don't always be telling them what you did at their age, but talk to them on topics that are progressive and up-to-date; enter into their plans; it may cost quite an effort at first, but you will be more than repaid. You can get their confidence and keep them at home with you, and no doubt you will

have an influence over them which would be more satisfactory than that of companions of their own choice.

JEMIMA BELL.

WANTS SOME HELP.

Dear Household Friends: Who eats all the cookies, cakes, pies, etc., that we mothers bake? Nearly all mothers assert, "My folks don't care for nick-nacks," yet the week's baking is kept up as religiously as though "my folks" were all hearty consumers of good things. Who does eat them? The cookie jar, the doughnut pail, the pie box, all are emptied in due time. I took this question right home to myself during my baking yesterday, and I come to you, to answer me.

I am doing a little artistic work, i. e., sewing rags for a carpet. I am in a hurry for it. I have six pounds of "hit-or-miss," now tell me you who know, how to prepare the "fancy stripe." I want to make twenty-five yards. What color warp do you advise? What dyes shall I use?

We are reading this week "John Halifax." It came as a premium with the Youth's Companion. You who have not read it, get it for your growing, restless sons to read. You who have read it, read it again. "Betsey Jane" is the next book in order. We read last week, "A Romance of Two Worlds." I wish some one would give me an opinion of that wonderful fiction?

OMEGA.

CHRISTMAS BEYOND THE ROCKIES.

Dear Household Sisters: I want to tell you all how we spent Christmas out here. We are in the habit of going to town to attend the Christmas tree at the church, but this year the

roads were so bad we had to put it off, so we got a tree and fixed it up at home, and I believe the children were twice as pleased.

We had a green Christmas here, and hope it won't make a fat graveyard, as the saying goes; that maxim doesn't hold good out here.

Gail Leslie has my sympathy. It is sure evidence of a Christian spirit to bear up cheerfully under such affliction.

Would like right here to thank Aunt Em for her onion poultice remedy; it acted like a charm for my baby's cold. I gave onion syrup as well.

I have that mitten pattern for cloth mittens that Flavia requests; if she does not find anyone closer that has it, I will send it to her. I make cloth mittens altogether now. I used to knit them, but find with my increasing work that I can make them a good deal faster, and if made out of stout cloth, lined good and warm, they will answer as well in every way.

I hope none of us will forget to keep our good resolutions this coming year, so that when Dec. 31, '98, comes we will have nothing to regret.

Whitman Co., Wash.

SISTER MARY.

There are still a few mitten patterns left in the editor's hands, and anybody desiring one can get it by sending a stamp to pay the postage.

When making up table linen save the trimmings. These will be exactly the thing to mend with when the pieces come to need it. Always cut by a thread before hemming to ensure straight edges after washing, no matter how "skew-y" the appearance may be at the time. This may sometimes seem wasteful, especially if it has not been carefully cut from the piece, but it is impossible to have the ends straight and even in any other way.

A Woman's Deed.

A BENEFACTRESS WHO IS DOING INCALCULABLE GOOD.

Devotes Much of Her Time to the Benefits of Children—How She Helps Them.

From the Evening News, Detroit, Mich.

Mrs. John Tansey, of 130 Baker Street, Detroit, Michigan, is one of those women who always know just what to do in all trouble and sickness. One that is a mother to those in distress. To a reporter she said:

"I am the mother of ten children and have raised eight of them. Several years ago we had a serious time with my daughter, which began when she was about sixteen years old. She did not have any serious illness but seemed to gradually waste away. Having never had any consumption in our families, as we come of good old Irish and Scotch descent, we did not think it was that disease. Neither did she have a hacking cough, yet she grew thinner and paler each day. Our doctor called the disease by an odd name which, as I afterward learned, meant lack of blood.

"It is impossible to describe the feelings John and I had as we noticed our daughter slowly passing away from us. As a last resort I was induced to try Dr. Williams' Pink Pills for Pale People, made by the Dr. Williams Medicine Company, Schenectady, N. Y., which I understood contained in a condensed form all the elements necessary to give new life and richness to the blood and restore shattered nerves. Before she had taken half a box, there was a decided change and after

three months' treatment you would not have recognized her, as her health was so greatly improved. She gained in flesh rapidly and soon was in perfect health. I have always kept the pills in the house since and have recommended them to every one I could. I have told many mothers about them and they have made some wonderful cures. One of the girls had a young lady friend that came to the house almost every day, and she was a sight. Honestly, she seemed almost transparent. I did not care to have my daughter associate with her, as I was afraid she would drop dead some day when they were out on the street. I recommended and begged her to take Dr. Williams' Pink Pills for Pale People, and told her of their sterling qualities and how the cost was slight, being only 50 cents a box or six boxes for \$2.50, at any druggist's. Finally I induced her to try them.

"They helped her wonderfully, and undoubtedly saved her life. She now recommends them to other young women.

"Every mother in this land should keep these pills in the house, as they are good for many other ailments. I don't believe in doctoring and never spent much money in medicines, but I can recommend Dr. Williams' Pink Pills to every mother that has a daughter just coming into womanhood."

SMOKE YOUR MEAT WITH KRAUSERS LIQUID EXTRACT OF SMOKE

SEND FOR CIRCULAR. E. KRAUSER & BRO. MILTON, PA.

SHORTHAND. Learn Shorthand at Home during the long winter evenings. Penna system taught by mail. Highest World's Fair award. Unequalled for simplicity, legibility and brevity. Write for free lesson and circulars. H. M. PERNIN, Author, Detroit, Mich.

CANCERS CURED. Absorption Process a conceded success. Scarcely a failure in 15 years. No knife. No Caustic. No Blood. No Pain. Write DR. HESS, of Grand Rapids, Mich., for particulars and references. For Cancer of the breast, if not broken out, treatment can be sent.

MOTHERS. Your Children cured of Bed wetting. Sample free. Dr. F. E. MAY, Bloomington, Ill.

LADIES WANTED to make sample patches at home. \$6 to \$10 per week. No canvassing. Send reply envelope for sample and particulars. **FOSTER MACHINE CO.** 525 West 29th Street, New York City.

SOLD!

UNDER A Positive Guarantee

to wash as clean as can be done on the washboard, even to the wristbands and collar of the dirtiest shirt, and with much more ease. This applies to Terriff's Perfect Washer, which will be sent on trial at wholesale price. If not satisfactory, money will be refunded. Agents wanted. For exclusive territory, terms & prices, write Portland Mfg. Co., Box 21 Portland, Mich.



Legal Department.

CONDUCTED BY EARL D. BABST,
56 Moffat Building, Detroit.

Boards used as ceiling become fixtures, even if not nailed.—J. C. Lev-
ering, Mich.—A has sold a one-story
house. There are loose boards laid on
the top of the joists overhead, not
nailed. Will A have a right to take
those boards away as personal prop-
erty?—Whether or not such boards are
fixtures depends entirely on the in-
tention of the person who placed them on
the joists. If they were intended as
a ceiling they are as fully annexed as
though nailed. If, however, they were
simply stored they might be removed
by A, as they would then be personal
property.

Personal Tax Paid at Place of Resi-
dence regardless of Location of the
Property.—F. E. L., Decatur, Mich.—A
lives in an incorporated village and
has mortgages on real estate outside
the corporation limits. Can he be com-
pelled to pay corporation taxes on the
money secured by these mortgages? B
also lives in the corporation limits, but
keeps cows just outside and claims he
does not have to pay corporation taxes
on their value. Are these not parallel
cases?—A mortgagee pays taxes on
mortgages held by him at the place
where he resides. If B lives in the
corporation he should be assessed there
on all his personal property wherever
located. Keeping cows outside the cor-
poration would not avoid the payment
of village personal tax on them. The
cases you cite are practically parallel.

License and bond required to carry
on nursery business—Agents.—In an-
swer to several inquiries the editor ad-
dressed the following letter to the At-
torney-General: "In your opinion does
Mr. L. come under sec. 5 or 6 of Act
137 of 1897? This question has come
to me from different quarters a num-
ber of times, and I have advised that
the agents taking the orders need not
file bond and apply for license, but that
the license and bond of their principal,
securing the required inspection, pro-
tected them." In reply we have the
following opinion: "Upon an examina-
tion of sections 5 and 6 of Act No. 137
of the Public Acts of 1897, I am in-
clined to agree with you in the con-
struction which you place on these sec-
tions, that only the principal who is
engaged in the nursery business is
obliged to file the bond and take out
license; and that when the principal
has applied for and taken out a license
and filed the bond required by these
sections, his agents are thereby pro-
tected. Very respectfully,
"AVERY E. CHASE,
"Deputy Attorney-General."

Condemning land for public road—
Township not required to furnish
plank for private bridge.—Sub-
scriber, Tawas City, Mich.—1. A sec-
tion line was surveyed some years ago.
One man owns land on both sides and
wishes pay for right of way. Can he
demand and get pay or can the high-
way commissioner force the road
through?—If in laying out a road it is
necessary to take private property the
board of road commissioners must
have the proposed road surveyed and
endeavor to agree with the owner for
the purchase of a right of way. If
the board is unable to agree with such
owner the board may present to the
circuit or probate court a petition de-
scribing the proposed road and the
land they have been unable to acquire
and praying for the appointment of
three commissioners to determine the
necessity of the road and the damages.
2. Is a land owner entitled to sufficient
plank from the highway commissioner
to build a bridge or culvert across a
ditch between the road and his build-
ings or residence?—A culvert is an
arched and covered drain running
across and under the road to carry
water across from one side of the road
to the other. It is no part of the duty
of the township to furnish plank for a
private bridge or sidewalk over a way-
side ditch.

Postal cards containing threatening
matter non-mailable.—Penalty for mail-
ing.—S. H., Scotts, Mich.—What is the
penalty for dunning a person through
the mail on a postal card?—The act
of September 26, 1888 (25 St. U. S.,
496), declares postals to be unmailable
which contain matter of a "threaten-
ing character, or calculated by the
terms or manner or style of display and
obviously intended to reflect injuri-
ously upon the character or conduct of an-
other." In United States vs. Boyle,
40 Federal Reporter 664, the court con-
cluded that a postal card on which is
written a demand for the payment
of a debt, and a threat to sue, or to
place the demand in the hands of a
lawyer for suit, if the debt is not paid,

was non-mailable matter. However, a
mere request to "call and settle ac-
count which is long past due and for
which our collector has called several
times," is not within the prohibition.
Not being a supreme court we cannot
decide just what amount of dunning
will make a postal card come within
the prohibition of the statute. The
penalty, upon conviction, for deposit-
ing or causing to be deposited matter
non-mailable under the statute above
referred to is a fine of not more than
\$5,000 or imprisonment at hard labor
for not more than five years, or both,
at the discretion of the court.

The Markets.

WHEAT.

The expected has taken place, and the
wheat market has been steadily advanc-
ing all week. It closes firm at the high-
est range of prices for months. Liver-
pool and London are higher, and close
firm. Reports from Europe are to the
effect that in portions of Russia wheat
will have to be imported. The demand for
cash wheat at Minneapolis is quite press-
ing from millers, and it looks as if values
had gone up to stay for a time. The
Chicago clique can now work off their
holdings to advantage.

The following table exhibits the daily
closing sales of spot wheat in this mar-
ket from January 5 to January 27, in-
clusive:

	No. 1	No. 2	No. 3
	White.	Red.	Red.
Jan. 5.....	91	90	86
" 6.....	90 1/2	90 1/2	86
" 7.....	91 1/2	91 1/2	87 1/2
" 8.....	91 1/2	91 1/2	87
" 9.....	90 1/2	90 1/2	86 1/2
" 10.....	92	91 1/2	87
" 11.....	91 1/2	90 1/2	86 1/2
" 12.....	91 1/2	91 1/2	87 1/2
" 13.....	91 1/2	91 1/2	87 1/2
" 14.....	90 1/2	90 1/2	86 1/2
" 15.....	91 1/2	91 1/2	87 1/2
" 16.....	91 1/2	91 1/2	87 1/2
" 17.....	92 1/2	92 1/2	88 1/2
" 18.....	92 1/2	92 1/2	88 1/2
" 19.....	92 1/2	92 1/2	88 1/2
" 20.....	92 1/2	92 1/2	88 1/2
" 21.....	93	93	89 1/2
" 22.....	93 1/2	93 1/2	89 1/2
" 23.....	94 1/2	94 1/2	91
" 24.....	95	95	91
" 25.....	95 1/2	95 1/2	92
" 26.....	96 1/2	96 1/2	92
" 27.....	97	97	93 1/2

The following is a record of the closing
prices on the various desks in futures
each day during the week:

	May	July
Friday.....	93	84 1/2
Saturday.....	93 1/2	84 1/2
Monday.....	94 1/2	85 1/2
Tuesday.....	94 1/2	85 1/2
Wednesday.....	95 1/2	85 1/2
Thursday.....	97	87 1/2

The visible supply of wheat on Sat-
urday last in the United States and Canada
was 37,153,000 bu, as compared with 37,-
833,000 bu the previous week, and 51,295,-
000 bu at the corresponding date last
year. The decrease for the week was
685,000 bu.

The steady volume of receipts in the
Northwest incline many to believe that
farmers have larger stocks on hand than
generally supposed. Per contra, Minne-
apolis millers are paying 2 to 3 1/2c more
for cash wheat than May futures are
quoted at, which certainly looks as if
they were sure all the wheat would be
wanted, and at as good prices as are
now current.

A snowstorm general over Kansas is of
great value to the new wheat crop, which
grain men say is in fine condition. The
acreage is the largest in the history of
the state, and there is scarcely a field
that does not give promise of a fine yield.

Some of the reports from Argentine say
the wheat crop has turned out better than
expected, the yield being 28 to 30 bushels
per acre. The shipments of wheat from
that country since January 1 have been
384,000 bu, against 39,000 bu for the cor-
responding time last year.

The Liverpool Corn Trade News makes
the world's shipments of flour and wheat
for the past week 5,550,000 bu, as follows:
From America, 4,196,000 bu; Russia, 740,000
bu; Roumania, 206,000 bu; Argentina, 328,000
bu; various countries, 490,000 bu.

Kansas expects to have one of the large-
est wheat crops yet raised in that State
the coming season.

The wheat crop is looking well in most
sections of Illinois.

The condition of the wheat on the
ground in this State is improving under
favorable weather conditions. The ground
has plenty of moisture, the weather mild,
and frequent snow-storms serve to pro-
tect the crop and preserve its vigor. There
must have been a great improvement in
prospects since the beginning of Decem-
ber.

DAIRY PRODUCTS.

BUTTER.

Receipts of butter are very large for
the season, and the result is seen in a
rather slow market on all grades of
creamery and dairy below the best.
Dairy is in excessive supply, and much of
it of poor quality. Quotations range as
follows: Creamery, 19@21c; fancy dairy,
14@15c; fair to good dairy, 11@13c; low
grades, 9@10c per lb. At Chicago the
market is quoted very slow and draggy,
at about the same range of values as
usual at this season of the year. Quota-
tions on Thursday were as follows:
Creameries, extras, 18 1/2c; firsts, 16 1/2c;
seconds, 12@15c. Dairies, extras, 15c;
firsts, 14@16c; seconds, 12c. Ladies, extras,
12@13c. Packing stock, 11c; roll butter,
11@11 1/2c. The New York market is re-
ported fairly steady on best qualities of
fresh table butter, the receipts of which
have only been of fair amount during
the past week. Buyers are only taking
enough to meet immediate requirements,
yet this seems enough to hold the mar-
ket steady on desirable grades. The ar-
rivals show a large amount of poor qual-
ity, and this has a weakening tendency
on the market. Quotations on Thursday
were as follows: Creamery, Western,
extras, per lb, 20c; do firsts, 18@19c; do
thirds to seconds, 14 1/2@17c; do State, finest,

19c; do firsts, 17@18c; do thirds to seconds,
14@16c; do June make, fancy, 18c; do
firsts, 16@17c; do thirds to seconds, 14@
15c; State dairy, half firkin and Welsh
tubs, finest, 17 1/2@18c; do firsts, 16@17c; do
thirds to seconds, 13@16c; State dairy,
firkins, finest, 17@17 1/2c; do common to
prime, 13 1/2@16c; imitation creamery,
fancy, 16 1/2@17c; do seconds to firsts, 13@
15c; factory, fresh, extras, 14@14 1/2c; do
seconds to firsts, 12 1/2@13 1/2c; do lower
grades, 11@12c; do June, extras, 13 1/2@14c;
do thirds to firsts, 11@13c; rolls, fresh,
choice, 13@13 1/2c; do poor to prime, 11@
12 1/2c.

CHEESE.

Taking the markets as a whole they
are not so strong as a week ago. This is
especially so at eastern points, where the
markets have been affected by a decline
in Liverpool. In this market there is
nothing new to report. Quotations rule
the same as a week ago, namely, 10 1/2@11c
for best full creams, with a steady tone
to the trade. At Chicago the market is
dull and featureless, with values ruling
about the same as a week ago. Quota-
tions in that market on Thursday were
as follows: Young Americas, 7 1/2@8 1/2c;
twins, 7@8 1/2c; cheddar, 7@7 1/2c; Swiss
9 1/2@10 1/2c; Limburger, 7@10 1/2c; brick, 8@
10 1/2c. The New York market has weak-
ened under a decreased demand for ex-
port, a drop in the price of American
cheese in Liverpool, and a rather limited
demand for the home trade. About all
grades have been affected. Quotations
in that market on Thursday were as fol-
lows: State, full cream, large, fancy, Sep-
tember, 8 1/2@8 3/4c; do choice October, 8@
8 1/2c; do fair to good, 7 1/2@7 3/4c; do com-
mon, 6 1/2@7c; do colored or white small,
fancy, September, 9@9 1/2c; do choice Oc-
tober, 8 1/2@8 3/4c; do common to good, 7 1/2
@8c; light skims, small, choice, 6 1/2@6 3/4c;
do large, choice, 6@6 1/2c; part skims, small,
choice, 6c; do large, choice, 5 1/2c; do good
to fine, 4 1/2@5 1/4c; do common to fair, 3 1/2
@4c; full skims, 2@3c.

At Liverpool on Thursday, the finest
white and colored American cheese was
quoted at 4 1/2s per cwt. of 112 lbs., as
compared with 4 1/4s, 6d, one week ago.
Market quoted dull and easy.

WOOL.

The wool markets at the east are re-
ported strong, with a steady increase in
the volume of business. The tendency
is toward an advance in values, and in
some instances this has already oc-
curred. At the London sales, which are
still in progress, American buyers are
taking a fair amount of the best Aus-
tralian greases (unwashed) and some
half-breds. The advance noted a week
ago has been fully maintained, and in
some instances values are a shade higher
on the finest Merinos. We look for ad-
vanced prices for American wools as the
result of higher values abroad. Ameri-
can markets can be advanced 1@2c, on all
wools, the latter on the best Merinos,
and not be above a parity with the prices
ruling abroad. It is also certain that
all the good wools will be wanted before
the next clip can be utilized, and we note
that eastern manufacturers have been
buying very freely the past week. The
prospects are good for the coming clip
to sell even above present prices, and if
consumption keeps up to its present
volume, there will be a big scramble for
wool in the latter part of February and
March.

DETROIT PRODUCE MARKET.

Detroit, January 27, 1898.

FLOUR.—Quotations on jobbers' lots in
barrels are as follows:

Straights.....	\$4.75
Clear.....	4.50
Patent Michigan.....	5.25
Low Grade.....	3.75
Rye.....	3.25
Buckwheat.....	3.75
Granulated Corn Meal.....	2.00

CORN.—The visible supply of this grain
on Saturday in the United States and
Canada was 41,789,000 bu, as compared
with 41,134,000 bu the previous week, and
21,718,000 bu at the corresponding date in
1897. Quotations on this market are as
follows: No 2, 25 1/2c; No 3, 25 1/2c; No 2 yel-
low, 25 1/2c; No 3 yellow, 24 1/2c. Market firm.

OATS.—The visible supply of this grain
in the United States and Canada on Sat-
urday last was 14,534,000 bu, as compared
with 15,063,000 bu the previous week, and
13,153,000 bu at the corresponding date in
1897. Quotations are as follows: No 2
white, 26c; No 3 white, 26 1/2c per bu. Mar-
ket firm.

RYE.—The visible supply of this grain
in the United States and Canada on Sat-
urday last was 4,002,000 bu, as compared
with 4,151,000 bu the previous week, and
3,675,000 bu at the corresponding date in
1897. No 2 quoted at 45 1/2c per bu.

FEED.—Jobbing quotations on carload
lots are as follows: Bran and coarse mid-
dlings, 12c; fine middlings, 14c; cracked
corn, 13c; coarse cornmeal, 12c; corn and
oat chop, 11c per bu.

BARLEY.—Quoted at 75@82 1/2c per cwt.
TIMOTHY SEED.—Selling at \$1.25 per
bu

CLOVERSEED.—Prime spot quoted at
\$3.20; March delivery, \$3.20; No 2, \$3@3.05;
alsike, \$3.50@4.50 per bu.

BUTTER.—Quoted at follows: Cream-
ery 19@21c; fancy dairy, 14@15c; fair to
good, 12@13c; low grades, 8@9c per lb.

CHEESE.—Michigan full cream quoted
at 10 1/2@11c per lb.

POULTRY.—Dressed chickens, 6 1/2@7c;
dressed geese, 8c per lb; dressed turkeys,
10@11c; dressed ducks, 8@8 1/2c per lb; live
about 1@2c lower.

EGGS.—Fresh receipts, 16@17c; storage,
12 1/2@14c per doz.

DRIED FRUITS.—Evaporated apples,
8 1/2@9c; evaporated peaches, 10@12c; dried
apples, 5 1/2@6c per lb.

APPLES.—Fair grade, \$2.50@3.50; fancy
fruit, \$3.75@4 per bbl.

HONEY.—Quoted at 10@13c per lb for
ordinary to best.

DRESSED HOGS.—Quoted at \$4@4.25
per 100 lbs for heavy, and \$4.50@4.75 per
choice light.

BEANS.—Market steady at a range of
92@95c per bu in car lots.

POTATOES.—Good Michigan stock sell-
ing at 55@58c per bu in carload lots; in
small lots 60@65c is paid. Market firm. At
Cleveland fancy white varieties are quoted
at 65@70c per bu; good to choice, 60@
65c; car lots, 52@58c per bu.

ONIONS.—Selling at 70@75c per bu for
Michigan. Market firm.

RUTABAGAS.—Quoted at 25@30c per bu.
CABBAGE.—Quoted at 35c per doz by
dealers; selling at 10@15c per doz, or \$1.50
per hundred on the market.

DRESSED HOGS.—\$3.75@4 per cwt for
heavy and 25@30c more for light butchers'
stock.

TALLOW.—Quoted at 3 1/4@3 1/2c per lb.
PROVISIONS.—Market firm and higher
under advancing values in live hogs. Lat-
est quotations are as follows: Mess pork,
\$9.75 per bbl; short cut mess, \$10.50; short
clear, \$9.75; compound lard, 4 1/2c; family
lard, 5 1/2c; kettle lard, 6 1/2c; smoked hams,
8 1/4@8 1/2c; bacon, 8 1/4@8 1/2c; shoulders, 5 1/2c;
picnic hams, 5 1/2c; extra mess beef, \$3.75;
plate beef, \$9.25.

HIDES.—Market firm. Latest quota-
tions are as follows: No 1 green, 7 1/2c; No
1 cured, 9c; No 2 green, 6c; No 2 cured,
8 1/2c; No 1 cured calf, 10 1/2@11c; No 2 cured
calf, 9@9 1/2c; No 1 green calf, 9c; No 2
green calf, 7 1/2c per lb; sheepskins, as to
wool, 75@1.25; shearlings, 20@35c.

COFFEES.—Revised quotations are as
follows: Roasted Rio, ordinary, 9c, fair
11c; Santos, good 14c, choice 18c; Mara-
cast, 20@25c; Java, 26@30c; Mocha, 28@32c.

OILS.—Lard and lard oils are firm,
and higher. No other changes. Latest
quotations are as follows: Raw lard, 42c;
boiled lard, 44c per gal, less 1c for
cash in ten-days; extra lard oil, 42c; No. 1
lard oil, 32c; water white kerosene, 8 1/2c;
fancy grade, 11 1/2c; deodorized stove gaso-
line, 7 1/2c; turpentine, 40 1/2c per gal in bbl
lots; in less quantities, 45@47c per gal.

HARDWARE.—Latest quotations are as
follows: Wire nails, \$1.70; steel cut nails,
\$1.65 per cwt, new card; axes, single bit,
bronze, \$5; double bit, bronze, \$3.50; single
bit, solid steel, \$6; double bit, solid steel,
\$3.50 per doz; bar iron, \$1.40; carriage
bolts, 75 per cent off list; tie bolts, 70 and
10 per cent off list; painted barbed wire,
\$1.70; galvanized do, \$2.00 per cwt; single
and double strength glass, 60 per cent off
list; sheet iron, No 24, \$2.50 per cwt; gal-
vanized, 75 and 10 per cent off list; No 1
annealed wire, \$1.50 rates.

DETROIT LIVE STOCK MARKET.

Michigan Central Stock Yards.

January 27, 1898.

CATTLE.

Receipts Thursday, 394, as compared
with 226 one week ago. The quality aver-
aged about the same as for the last few
weeks. Market active and strong to 5c
higher. \$4.10@4.15 were highest prices paid
to-day for good butcher steers and heif-
ers av. 900 to 1,100 lbs., but the buy-
ers changed hands at prices ranging from
\$3.25 to \$3.90; old to good fat cows, \$2.25 to
\$3.60; bulls, good shipping, \$3.30 to \$3.60;
fair to good sausage and butchers, \$2.75
to \$3.25; feeders and stockers, \$3.00 to
\$3.90. Veal calves—Receipts, 80; one week
ago, 63; active and steady; sales at \$5.00
to \$6.50 per 100 lbs. Milch cows and spring-
ers steady; sales ranged from \$30.00 to
\$47.50 each, mostly \$35.00 to \$45.00.

John Major sold Kammam a fat bull
weighing 575 at \$3.00; 8 steers and heifers
to Mich Beef Co av 1060 at \$4.10, a bull
weighing 1570 at \$3.25 and 2 cows av 940 at
\$2.65; 2 heifers to McIntyre av 550 at \$3.30
and 1 do weighing 700 at \$3.50.

Mayer sold McClaughrey 4 steers av 720
at \$3.75; a fat cow to Caplis & Co weigh-
ing 1000 at \$3.10 and a steer weighing 950
at \$3.80.

Dennis sold Fitzpatrick 23 mixed butch-
ers av 770 at \$3.65 and a fat steer weigh-
ing 1150 at \$4.15.

Ackley sold Black 9 mixed butchers av
992 at \$3.35; 2 bulls to Sullivan av 1275 at
\$3.10 and a steer weighing 750 at \$3.60.

Jameson sold Sullivan 3 oxen av 1620 at
\$3.20.

Murphy sold Fitzpatrick a bull weigh-
ing 1550 at \$3.25 and a fat cow weighing
1400 at \$3.60.

Reason sold Caplis & Co 12 mixed
butchers av 770 at \$3.50 and 2 cows av 1165
at \$3.00; also 2 common butcher cows to
Clancey av 845 at \$2.50.

N Nott sold Mich Beef Co 8 cows av 1080
at \$3.25.

Gardner sold Caplis & Co 3 steers av 970
at \$3.70.

Hogan sold Sullivan a steer weighing
780 at \$3.25; 2 mixed butchers to Black av
865 at \$3.40; 3 do av 1123 at \$3.25 and a bull
weighing 1400 at \$3.25.

Lingeman sold Sullivan 2 steers av 1250
at \$3.50.

Clark & B sold Mich Beef Co 4 cows av
1040 at \$3.10 and a bull weighing 1000 at
\$3.40; also 20 mixed butchers to Schleicher
av 887 at \$3.75.

El Miller sold Black 2 bulls av 1065 at
\$2.85 and 3 mixed butchers av 783 at \$3.50.

Cushman sold Sullivan a bull weigh-
ing 670 at \$3.00; 22 steers and heifers to
Black av 843 at \$3.85 and 2 mixed av 675
at \$3.00.

Ed Clark sold Black 8 heifers av 940 at
\$3.90 and 2 mixed av 955 at \$3.00; also 6
steers to Sullivan av 853 at \$3.90.

Scelley sold Sullivan 5 feeders av 830
at \$3.30 and a bull to Caplis & Co weigh-
ing 1170 at \$3.00.

OverSmith sold Caplis & Co 7 cows av
1060 at \$3.00.

Sharp sold Mich Beef Co 4 heifers av
870 at \$3.80 and a cow weighing 950 at \$3.25.

Roe & Holmes sold Robinson 11 mixed
butchers av 747 at \$3.50, 6 do av 981 at \$3,
10 steers and heifers av 905 at \$3.75, 5 do
av 808 at \$3.90, 2 cows av 1015 at \$3.00, 1
do weighing 1220 at \$3.00; 4 cows to Black
av 1235 at \$3.35; a steer to Mich Beef Co
weighing 920 at \$3.55, 4 cows av 1057 at
\$3.25 and 3 do av 1083 at \$2.75.

Purdy sold Teegan 4 stockers av 705 at
\$3.60 and 6 do to Ford av 666 at \$3.50.

Stephens sold Caplis & Co 3 mixed
butchers av 773 at \$3.85 and 3 cows av 1243
at \$3.20; also 6 steers to Sullivan av 741
at \$3.70.

Leach sold Regan 2 cows av 1200 at
\$2.70; 6 do to Black av 1193 at \$3.25 and 8

of prices: Good to choice lambs, \$5.40 to \$5.65; light to good, \$4.50 to \$5.30; good mixed lots, \$4.50 to \$4.75; fair to good mixed butchers, \$3.50 to \$4.50; common to fair, \$3 to \$3.40.

Sharp sold Sullivan Beef Co 21 fat sheep av 102 at \$4.30 and 21 common butchers av 73 at \$3.25.

Dennis sold Fitzpatrick 62 mixed av 83 at \$4.40.

Robt sold same 64 lambs av 74 at \$5.40 and 22 fat sheep av 108 at \$4.25.

Bartholomew sold Mich Beef Co 53 lambs av 82 at \$5.50 and 6 fat sheep av 93 at \$4.

Roe & Holmes sold Sullivan Beef Co 16 lambs av 90 at \$5.65.

Sutton sold Mich Beef Co 74 lambs av 91 at \$5.40 and 28 mixed av 90 at \$4.

Clark sold same 35 lambs av 67 at \$5.

Spicer & M sold Heiser 19 lambs av 94 at \$5.60.

Roe & Holmes sold Morey 29 lambs av 75 at \$5.40.

Hawley sold Mich Beef Co 24 lambs av 86 at \$5.50 and 9 fat sheep av 101 at \$4.25.

Adams sold Hammond, S & Co 28 lambs av 90 at \$5.60.

Nichols sold Heiser 18 mixed av 90 at \$3.50.

Stephens sold Sutton 92 lambs av 92 at \$5.55.

R Cushman sold Mich Beef Co double deck car lambs av about 90 lbs. to be delivered at Buffalo, car weights, at \$5.85.

HOGS.

Receipts Thursday, 2,895, as compared with 3,524 one week ago. Quality this week running mostly to Yorkers. Market opened active and 10 to 15c. higher than last Friday's closing, but at the close Yorkers were rather slow and weak.

Range of prices: Good mediums, \$3.55@3.90; Yorkers, \$3.75@3.85; pigs, \$3.60@3.70; stags, 1-3 off, roughs, \$3@3.35.

Bartholomew sold same 39 av 251 at \$3.30.

Nott sold same 18 av 180 at \$3.85.

Smith sold Sullivan 62 av 143 at \$3.80.

Major sold same 17 av 164 at \$3.85.

Miller sold same 53 av 159 at \$3.80.

Lingeman sold same 35 av 136 at \$3.80.

Hawley sold same 130 av 140 at \$3.80.

Clark & B sold same 10 av 118 and 33 av 108 at \$3.70.

Scelley sold same 44 av 170 at \$3.80.

OverSmith sold Hammond, S & Co 84 av 204 at \$3.90.

Roe & Holmes sold same 48 av 204 and 15 av 223, 43 av 187, 86 av 228 and 74 at 219, all at \$3.90.

Spicer & M sold same 74 av 205 at \$3.90.

Jelsch sold same 116 av 192 at \$3.90.

McHugh sold same 91 av 190 at \$3.90.

Hogan sold same 29 av 144 at \$3.75 and 18 av 131 at \$3.90.

Robb sold same 21 av 216 at \$3.85.

Belhimer sold same 24 av 229 at \$3.90 and 29 av 241 at \$3.87½.

Ed Clark sold same 75 av 200 at \$3.85.

Sharp sold same 66 av 189 at \$3.85.

Dunn sold R S Webb 43 av 179 at \$3.90.

Stevens sold same 56 av 202 at \$3.90.

Reason sold same 15 av 172 at \$3.90.

Roe & Holmes sold Black 86 av 104 at \$3.85.

Adams sold same 52 av 185 at \$3.85.

Friday, Jan. 28, 1898.

CATTLE.

Receipts Friday, 328, as compared with 223 one week ago. Market active and steady. \$4.05 was 10-day for good butcher steers. Av 926 lbs. balance as noted. Veal calves and milch cows unchanged.

Purdy sold Kammen 2 fat cows av 965 at \$3.50, and 6 do av 1001 at \$2.90.

Spicer & M sold Mich Beef Co 6 mixed butchers av 718 at \$3.40, and a cow weighing 960 at \$2.75.

Roe & Holmes sold same 9 stockers av 630 at \$3.50, and 4 cows av 985 at \$3.00.

Sprague sold Caplis & Co 6 steers av 926 at \$4.05, and 4 cows av 1133 at \$3.05, and 1 do weighing 1330 at \$3.50.

OverSmith sold Nicholson 5 stockers av 712 at \$3.70.

Luckie sold Kammen a bull weighing 720 at \$3.25, and a steer to Sullivan weighing 590 at \$3.50.

Richmond sold McIntyre 3 mixed butchers av 810 at \$3.50.

Roberts & Spencer sold Clancey 2 cows av 975 at \$3.00.

Spicer & M sold Caplis & Co a bull weighing 760 at \$3.50, 2 do av 1250 at \$3.25, and a cow weighing 1,180 at \$3.00.

Kalahan sold Regan 5 mixed butchers at 755 at \$3.30, and 8 steers and heifers to Sullivan av 886 at \$3.75.

Weeks sold Magee 5 cows and bulls av 878 at \$3.00.

Roberts & S sold Michigan Beef Co 10 mixed butchers av 1138 at \$3.35, 4 cows av 967 at \$2.60, 8 steers av 881 at \$4.00, and 4 do av 1007 at \$4.00.

Brown & Y sold Caplis & Co 3 mixed butchers av 990 at \$3.65, and a cow weighing 750 at \$3.00; also 3 steers to Mich Beef Co av 1033 at \$4.00.

Roe & Holmes sold Kammen 7 mixed butchers av 998 at \$3.00, and a cow weighing 1100 at \$2.75.

McWhitney & P sold Bussell 4 steers and heifers av 880 at \$4.00, and 2 mixed butchers to Kammen av 635 at \$3.25.

Weeks sold Mich Beef Co 12 mixed butchers av 800 at \$3.50, and 2 bulls av 1325 at \$3.60.

Roe & Holmes sold Magee 5 mixed butchers av 871 at \$3.25, and a bull weighing 1020 at \$2.60; 12 mixed butchers to Robinson av 861 at \$3.85, 4 do to Black av 897 at \$2.75; 2 (oxen and bull) to Sullivan av 1805 at \$3.50; 8 mixed butchers to Fitzpatrick av 1103 at \$3.25, and a bull to Mich Beef Co weighing 1370 at \$3.25.

Fox & Bishop sold Fitzpatrick 9 cows av 1000 at \$3.20.

Patrick & Kline sold Cook & Fry 4 mixed av 760 av \$3.75, and a heifer weighing 900 at \$4.00.

Erwin sold Caplis & Co 6 steers and heifers av 900 at \$3.70, 4 cows av 1020 at \$3.15, and 1 do weighing 1010 at \$2.50.

Shook sold Cook & Fry 8 mixed butchers av 702 at \$3.50, and a bull to Caplis & Co weighing 1360 at \$3.00.

Johnston sold Bussell 3 heifers av 976 at \$4.

Spicer & Merritt sold Heming 8 common butcher cows av 935 at \$2.65, and 2 heifers av 585 at \$3.25.

Eddy sold Sullivan 21 mixed stockers av 709 at \$3.50, and 3 oxen and bulls av 1,533 at \$3.30; also 4 cows to Black av 1,030 at \$3.25.

Armstrong sold same 6 cows av 1,046 at \$3.25 and 19 steers and heifers av 874 at \$3.50.

Spicer & M sold same 2 cows av 1,015 at \$3.10 and 3 steers and heifers av 680 at \$3.70.

McMullen sold Mich Beef Co 9 mixed butchers av 750 at \$3.50.

SHEEP AND LAMBS.

Receipts Friday, 1,197; one week ago, 608. Market active and unchanged from above quotations.

Pline sold Mich Beef Co 70 lambs av 63 at \$5.20.

Roberts sold same 77 lambs av 83 at \$5.50.

Judson sold Monaghan 25 mixed butchers av 87 at \$3.40.

Weeks sold Robinson 45 lambs av 73 at \$5.40.

Judson sold Hammond & Co 49 mixed av 131 at \$4.10.

Spicer & M sold same 32 lambs av 73 at \$5.45.

Judson sold Fitzpatrick 42 mixed av 96 at \$4.10 and 92 lambs to Sutton av 76 at \$5.45.

Pinkney sold Mich Beef Co 53 lambs av 64 at \$5.25 and 21 culs av 65 at \$3.

Eddy sold Sutton 99 lambs av 93 at \$5.55.

Armstrong sold Monaghan 42 lambs av 78 at \$5.45.

Nixon & McM sold Mich Beef Co 76 lambs av 70 at \$5.35 and 14 mixed av 97 at \$5.50.

Spicer & M sold same 97 lambs av 64 at \$5.25 and 97 do to Sutton av 63 at \$5.25.

Kalahan sold Fitzpatrick 32 lambs av 86 at \$5.60.

Spicer & M sold Bussell 33 lambs av 93 at \$5.60.

McMullen sold Sutton 169 lambs av 79 at \$5.40.

Fox & Bishop sold same 34 lambs av 80 at \$5.40.

HOGS.

Receipts Friday, 4,023; one week ago, 3,573. Market opened rather slow and weak; later trade was active, and all changed hands at prices averaging 2½c below above quotations.

Harger sold Parker, Webb & Co 58 av 211 at \$3.85.

Luckie sold same 67 av 165 and 67 av 254 at \$3.85.

Parsons & H sold same 74 av 206 at \$3.85.

Young sold same 65 av 185 at \$3.85.

Spicer & M sold same 38 av 192 at \$3.85.

McCloughry sold same 61 av 195 at \$3.85.

McMullen sold same 21 av 180 and 66 av 210 at \$3.85.

Weeks sold same 106 av 163 at \$3.85.

Roe & Holmes sold same 81 av 188, 34 av 131 at \$3.85, and 42 av \$3.80.

Kalahan sold Sullivan 23 av 122 at \$3.70.

Baldwin sold same 15 av 228 at \$3.80.

Richmond sold same 58 av 174 at \$3.80.

Brown & Y sold Hammond, S & Co 35 av 192 and 72 av 211 at \$3.87½.

Hauser sold same 67 av 242 at \$3.87½.

F W Horner, sold same 64 av 232 at \$3.87½.

Warren sold same 60 av 181 at \$3.82½.

Erwin sold same 38 av 154 at \$3.82½.

Spicer & M sold Parker, Webb & Co 78 av 190, 49 av 182, 57 av 172 and 90 av 195 at \$3.85.

Roe & Holmes sold same 45 av 156-at \$3.85 and 92 av 190 at \$3.87½.

Fox & Bishop sold same 112 av 162 and 80 av 212 at \$3.85.

Asley sold same 109 av 182 at \$3.80.

Shook sold same 21 av 164 at \$3.85.

Roe & Holmes sold same 70 av 78 at \$3.60, 46 av 161 and 50 av 157 at \$3.85.

Nixon sold same 74 av 211 at \$3.82½.

Stevens sold same 37 av 190 at \$3.85.

Roe & Holmes sold same 55 av 230 at \$3.87½ and 92 av 156 at \$3.82½.

Roberts & S sold Hammond, S & Co 62 av 197 at \$3.87½.

Pinkney sold same 25 av 209 at \$3.87½.

Horne & R sold same 72 av 224 at \$3.85.

Shelton sold same 52 av 214 at \$3.87½.

Condon sold same 57 av 184 at \$3.82½.

McWhitney sold same 60 av 124 at \$3.75.

Johnston sold same 49 av 172 at \$3.82½.

Descher sold same 49 av 170 at \$3.85.

Messer sold same 93 av 175 at \$3.82½.

Kenney & S sold Hammond, S & Co 69 av 209 at \$3.82½.

Armstrong sold Sullivan 49 av 170 at \$3.80.

Morey sold same 42 av 176 at \$3.80.

OUR BUFFALO LETTER.

East Buffalo, January 27, 1898.

Cattle.—Receipts of cattle on Monday last were 4,708; as compared with 4,488 the same day the previous week, and shipments were 3,525, as compared with 3,408 for the same day the previous week. The market opened fairly active, and at an advance of 10¢ to 15¢ on good steers, and strong for all classes of butchers' cattle, while coarse rough steers and common stuff ruled slow and unchanged. Bulls were in good demand and higher for good butchers' and sausage; oxen in light supply and steady. Stockers and feeders were in good demand, and as the supply was light all offered were taken. Export steers sold at a range of \$5.65 to \$5.75. Since Monday the market has ruled strong, under light receipts, and good cattle have advanced. On Wednesday quotations closed as follows: Export and shipping steers—Prime to extra choice finished steers, 1400 to 1475 lbs, \$5.00@5.25; prime to choice steers, 1300 to 1400 lbs, \$4.80@4.95; good to choice fat steers, 1200 to 1400 lbs, \$4.60@4.75; good to choice fat smooth steers, 1100 to 1200 lbs, \$4.45@4.60; green coarse and rough fat steers, 1050 to 1400 lbs, \$3.75@4.30. Butchers' native cattle—Fat smooth dry fed steers, 1050 to 1150 lbs, \$4.50@4.60; fat smooth dry fed light steers, 900 to 1000 lbs, \$4.30@4.40; green steers thin to half fattened, 1000 to 1300 lbs, \$3.60@4.15; fair to good steers, 900 to 1000 lbs, \$3.90@4.30; choice smooth fat heifers, \$4.20@4.50; fair to good fat heifers, \$3.65@4.15; light thin half-fat heifers, \$3.40@3.50; good smooth well fattened butcher cows, \$3.60@4.00; fair to good butcher cows, \$3.60@4.00; common old shelly cows, \$2.60@2.75. Native stockers, feeders, bulls and oxen—Feeding steers, good style, weight and quality, \$3.85@4.10; feeding steers, common to only fair quality, \$3.30@3.75; good quality yearling stock steers, \$3.70@4.00; stock heifers common to choice, \$3.35@3.50; export weight bulls, fat and smooth, \$3.75@4.00; good fat smooth butchers' bulls, \$3.50@3.75; fair to good sausage bulls, \$3.35@3.50; thin old and common bulls, \$2.65@2.90; stock bulls, \$3.30@3.40; fat smooth young oxen, to good lots fit for export, \$4.40@4.50; fair to fairly good partly fattened young oxen, \$3.25@3.50; old common and poor oxen, \$2.25@3.00.

Thursday the market ruled steady to strong, at unchanged prices.

Sheep and Lambs.—Receipts, Monday, were 16,700, as compared with 13,800 the previous Monday; shipments were 12,800 as compared with 9,000 for the same day

the previous week. The week opened with a good supply and a fairly active market. Values on sheep, yearlings and lambs held about steady with the close of the week. Top lambs sold at \$5.80@5.90; top yearlings, \$5.25@5.35; top sheep, \$4.75@4.90; the market closing steady, with the bulk of the offerings sold. Since Monday the market has ruled steady and firm, and on Wednesday there was a good demand for all desirable grades of both sheep and lambs at strong prices. Quotations were as follows: Native Lambs—Choice to fancy native lambs, 75 to 80 lbs average, \$5.85@5.95; fair to good native lambs, \$5.50@5.80; heavy lambs averaging from 105 down to 95 lbs, \$5.50@5.75; good culs and common spring lambs, \$5.15@5.40; common to fair cull lambs, \$4.75@5; good to choice feeding lambs, \$5.25@5.65. Yearlings—Good to choice native handy yearlings, \$5.05@5.25; common to fairly good ewe yearlings, \$4.50@4.75. Native Sheep.—Prime to fancy wethers, \$4.75@4.90; good to fancy handy sheep, \$4.35@4.65; common to fair, \$4.04@4.25; culs and common, \$3.85@3.95; heavy export western fed sheep and wethers, \$4.04@4.25.

Thursday the market was active and firm at Wednesday's range of prices.

Hogs.—Receipts of hogs on Monday last were 26,230, as compared with 29,640 for the same day the previous week; and shipments were 17,480, as compared with 20,520 for the same day the previous week. With lighter receipts the market opened active, ruled strong all day, and closed higher. About everything offered was sold. As compared with Monday of last week prices showed an advance of 10¢ to 12½¢ per hundred. Choice Yorkers sold at \$4.40@4.50; choice light, \$3.95; mixed packers, \$3.95@3.97½; and prime heavy hogs, \$3.95. The tone of the market was decidedly firm at the advance. Since Monday there has been a still further advance, although at the opening on Wednesday values ruled rather weak for a time. At the close quotations were as follows: Good to choice Yorkers, 160 to 175 lbs, \$4.05; prime selected light Yorkers, \$4.05@4.10; mixed packers' grades, \$4.04@4.05; medium weights, 220 to 240 lbs, \$4.04@4.05; heavy hogs, 250 to 300 lbs, \$4.04@4.05; roughs, common to choice, \$3.35@3.60; stags, common to choice, \$2.80@3; pigs, good to choice, \$3.90@4; skips, common to fair, \$3.25@3.35.

Thursday the market was firm at a strong advance. Sales were made at the following range: Yorkers, \$4.17½@4.20; mostly \$4.15@4.17½; pigs and light Yorkers, \$4.10@4.15; mixed packers and mediums and heavy grades, \$4.20.

CHICAGO.

Union Stock Yards, January 27, 1898.

Cattle.—Receipts for last week were 49,757 head, as compared with 49,729 the previous week and 43,536 for the corresponding week in 1897. Monday, with lighter receipts, there was an active market all day. The best steers sold rather unevenly, but mostly 10¢ higher than at the close of the week, and second quality was also about 10¢ higher, while common to fair ruled strong. Butchers' cattle, mixed lots and canners were also in good demand, and sold strong, but no higher. The bulk of the best steers sold at from \$5 to \$5.30, with a few at \$5.40; heifers ranged at \$4.40@4.50; cows, \$3.65@4.00; very few stockers and feeders on sale. Up to and including Wednesday of this week receipts have been 26,505, as compared with 36,499, a decrease of 10,000 head. The decrease is partially due to the big snow storms of this week. Business was active on Wednesday, and generally at a higher range of values. The quality of the offerings was also better, and top steers showed an advance in value. The range on steers was \$4.05@5.50, the latter price paid for a lot of extra steers of fine quality. A large number of good steers sold at \$5.05@5.35, and a number of lots of plain but useful cattle at \$4.00@4.50. Butchers' cattle were firm and higher, and this includes cows, heifers, bulls, and handy-weight steers. The market closed firm.

Thursday's receipts estimated at 19,000, and there was a general decline in prices, reaching 10¢ on some grades. The best steer cattle sold up to \$4.40.

Sheep and Lambs.—Receipts last week were 71,936, as compared with 71,022 for the previous week, and 61,679 for the corresponding week in 1897. Monday trade opened strong and active, with some lots of sheep selling at an advance of 10¢, and lambs fully 15¢ over Saturday's prices. About everything sold was at strong prices. Fair to good mutton sheep sold at \$4.15@4.50; prime wethers, \$4.50@4.65; prime yearlings, \$4.00@4.30; fat ewes, \$4.30@4.35; thin, poor and common lambs, \$3.50@3.75; something better, \$5.50@5.65; top market lambs, \$5.60@5.75. A few feeding lambs sold at \$5.15. Up to and including Wednesday of this week receipts have been 42,338, as compared with 50,970 for the same days last week. The decline in the receipts is attributed to the snow storms. The few lots of good stock on sale sold quickly at a strong advance on Wednesday. Lambs were 25¢ to 40¢ per hundred higher than last week. Fat ewes sold at \$4.30@4.40; good mutton sheep, \$4.50@4.70; yearlings, \$4.70@5.25. Thin and common lambs, \$3.50@3.75; mediums, \$5.60@5.75; top native market lambs, \$5.85@6.

Receipts Thursday estimated at 20,000; market steady and unchanged.

Hogs.—Receipts last week were 166,095, as compared with 176,280 the previous week, and 209,230 for the corresponding date in 1897. Monday's receipts showed

a decline of 10,000, as compared with the previous Monday. The market opened active, with a strong upturn of 5¢, and so remained until the close, when, as is usual after an early advance, values ruled a trifle easier. Rough old sows and common sold at \$3.65@3.70; prime packers and good mixed, \$3.75@3.80; prime medium, butcher-weights and shippers, \$3.80@3.85; strictly selected light, 125@170 lb average, \$3.70@3.75; light little pigs of 100 lbs average and under, \$3.50@3.55. Up to and including Wednesday of this week receipts have been 67,791, as compared with 100,696 for the same days last week. The decrease in receipts is expected to be made up next week. On Wednesday business opened active at an advance of 5¢, which later sales showed to be fully 10¢, and the market closed firm. Packers scrambled for the late arrivals and paid top prices. Rough old sows and throw-outs sold at \$3.60@3.70; prime packers and good mixed, \$3.85@3.90; prime mediums, butcher-weights and shippers, \$3.95@3.97½; one small lot of city butchers, \$4; selected light, \$3.75

Horticultural.

For The Michigan Farmer.
SMALL FRUIT GROWING FOR BEGINNERS.

As the time approaches when we shall watch the unfolding of leaf and bud, we begin to make preparations for the season's work, and thought perhaps a few articles on this most fascinating of occupations, telling how I grow berries might not come amiss. Perchance they may help some beginner to avoid some of the mistakes that I made, while learning to grow small fruits by the rather expensive way of experience.

To be a successful fruit grower we must have our plans well laid for the season's work before the hurry of the work is upon us. We should know just where we are going to set our strawberries, raspberries and blackberries, and just how many plants of each we shall need. If our soil needs fertilizing then we may draw the manure on during the late winter or early spring months. If we are to purchase our plants then we should secure catalogues from the leading reliable nurserymen and see what varieties they say we should set. This, however, is for our diversion; we shouldn't for a moment think of doing as they tell us in the catalogues. Nurserymen must keep all varieties of any merit in stock, and of course will tell all about the good qualities of each, and as we read down the list we will think each variety the berry par-excellence! and be tempted to order this, that and the other which will never do! For a beginner, four, or at the most, six varieties will be plenty. A good way for beginners to find out what kinds will be the most desirable for them is to send a description of their soil to some reliable nurseryman of plants and ask him what varieties they should have. Then you will receive a list, all or nearly all of which will prove to be what you want.

After you have a start and have taken your first lessons in fruit growing, then it will be well to try a larger number of varieties, and some of the newer kinds as they come out.

To those who have a love for the work, it is a delight to watch the different kinds develop, for some will hold their fruit well up from the ground, while others will cover the ground with their fruit. Yes, we have had our 18-inch paths so nearly full as to leave scarcely room in which to walk. Not only do we want a variety of kinds for the pleasure of seeing them grow, but also to tempt the appetite of our customers, for when they are likely to tire of one kind give them something new. From among your great variety you will be likely to have something to hit their individual taste, and perchance you get something very nice that the other fellow has not, you will be "in it" while he will not. If you have a natural aptitude or liking for the work, then will the work be a pleasure. You will want to see your plants thrive, and will want to see each one looking just so nice. To be successful in the highest sense of the term, you must set your mark high. Read everything you can get pertaining to the culture of small fruits, and when your enthusiasm is at a fever heat hold it there and your success is assured.

While I am penning this article there comes up before my mind's eye a vision of the ideal berry patch as I would have it. The ground has been thoroughly cultivated and mulched with green clover, and is therefore warm and moist; the rows are straight and even, the plants are strong and healthy and the foliage bright and clean, and as a finishing touch the vines are loaded and the ground covered with the luscious crimson fruit. The first thing I want to do is to arouse your enthusiasm and get you so interested that luxuriant vines and bushes, or great heaps of fruit will be constantly before your mind; then have you learned the first lesson of a successful fruit grower.

Be artistic in your work, make your work so near perfection that you will be proud of it and take real pleasure in showing visitors over your grounds. But, you may ask, does it pay to take all this pains? Yes, we think it does. It may not look so at first, but in the long run it certainly will, in dollars and cents, as well as in pleasure.

Again you may ask, can a person get a perfect growth of vines or bushes? Our answer would be that that depends upon how high an ideal of "perfection" a person has. We suppose it is possible to get a perfect growth, but we have not yet succeeded in getting a growth

that met our ideal of perfection. Yet we have had vines that other growers said were perfect. To our eye, however, there was something lacking; it may have been that some plant did not show the thrift we thought it ought, or it may have been that some grub had eaten its breakfast and left a vacancy in the row—something to make the results a little less than perfect. But such imperfections should not discourage us. They should only make us the more determined to climb to the highest round of success.

In our next article we will tell how we prepare the ground and set the plants.

M. N. EDGERTON.

St. Clair Co.

For the Michigan Farmer.

OTHER VINES.

Every well-cared-for garden has its vines, morning glories, sweet peas and nasturtiums, but it is refreshing to step out of the regular round and plant those seldom seen. Nine amateurs out of ten never saw a cobaea, and if some have attempted to grow it, they came to the conclusion "the plaguey seeds never would start," and all because they don't understand their little cranky notions. I plant mine in a flower pot, edge down, cover the pot with a piece of cloth, keep in the sun, and not water until the earth gets dust dry. When they make up their minds to begin they grow rapidly and have very quaint, beautiful flowers to reward you. The colors change from green to a lovely purplish blue. Another surprise vine is momordica. The flowers are small but turn into orange-colored fruit, bursting open, and then you have a bright scarlet center. Cypress vine, and Maurandya, are very delicate, and well worth trying to cultivate. It is hard to find a nice vine for the window but this spring send for a Swansonia, something new, and really what will do well in an amateur's hands. The foliage is like a fern, and the blossoms resemble a sweet pea, but even without them the plant is very pretty. It does well fastened to a light screen.

Why will people have their back yards disfigured by barns, sheds, and ugly hen-coops without trying to cover them, when there is the variegated hop vine, longing for something to climb upon, and the only trouble is, it will squeeze the life out of roses, or other choice plants if it gets a chance. But it is the right vine for the right place, and will cover an ugly wall, and make it beautiful, with its green and white shaded leaves. The trouble is it is too generous and springs up all over the garden, and is worse than any weed. And there are gourds. The nest egg variety with its white eggs, delights the children and makes an old hen house very pretty with its large leaves often splashed with white.

ANNA LYMAN.

SAN JOSE SCALE A "BUGBEAR."

Prof. Bailey, of Cornell Experiment Station, Dr. Smith, New Jersey State Entomologist, and other authorities say that fruit-growers already have to contend with "infinitely worse" enemies than the San Jose, or any other scale insect, and that insects and fungi are sometimes "literal bugbears." (Note attached circular).

Practical, personal experience with the San Jose scale will be of interest. The following is from Mac. J. Crow, or years associated in the management of a leading California nursery and orchard at Napa, Cal., who has recently taken up his residence in Pike county, Mo. Mr. Crow writes us: "The San Jose scale is evidently thoroughly established in numerous localities east of the Rocky Mountains. Orchardists should accept the fact, quit talking about legislation, and turn their attention to prevention or cure, as the case may be, in their individual orchards.

"Some are making a 'mountain out of a molehill' and seem to overlook entirely the fact that this scale problem was solved in California some six or eight years ago, and is to-day requiring much less attention than some fungous diseases which are so numerous throughout the Eastern and Middle States. It is far easier to combat the San Jose scale than the codlin-moth, scab, blight, or borers; the former can be kept thoroughly in check with less work and expense than any one of the latter. This is an indisputable fact—a fact thoroughly demonstrated in the California orchards. It is unnecessary to dig up and burn a badly-infested tree, as the wise ones often say. Three thorough sprayings with lime, sulphur and salt, or the resin washes, properly applied at the right times, will clean

any tree, no matter how many scale are on it; then one spraying a year is sufficient. Of course, if the scale have been on so long as to almost kill the tree, then a new one had better be planted.

"It sounds rather ridiculous to hear such an uproar about an insect that, as said before, is less dangerous or troublesome than many of the insects which orchardists are fighting and saying nothing about. The numbers of curculio, codlin-moth and several others can only be diminished in a degree, and the damage resulting from their depredations in proportion; but the scale can easily be rendered perfectly harmless."

TREE THAT PAYS.

Possibly few trees in the old world are more profitable than the English walnut, which thrives in England and all over the northern part of the continent of Europe. The wood is especially useful for gunstocks, and for many articles of furniture, and is found profitable from trees of 10 years of age and upwards. There is always good demand for the nuts, so that there are two distinct lines of profit—by the timber and by the fruit. In our country they thrive in any portion of the eastern states; although, as they progress northwardly, the tips of the last year's shoots are destroyed by winter. The living portions bush out again, however, and generally bear as abundantly as before.

In the vicinity of Philadelphia there are numerous trees, planted by the early settlers, which bear every year. Single or isolated trees sometimes fail to bear fruit, on account of the pollen-bearing flower maturing and scattering pollen before the nut-bearing flower is in condition to receive it; and for this reason crops are more assured when a number of trees are planted together. In this way some of the pollen-bearing catkins are conditioned so as to be in bloom before the time that the nut-bearing flowers make their appearance.—Meehan's Monthly.

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GARDENING NOT AGRICULTURE LEADS.

The rapid concentration of population in cities during the past few years has had a marked effect upon rural communities and agricultural industries. The cities and towns of the eastern and middle states already cover so large a territory as to leave little room for what is commonly called "farming" or agriculture. For example, nearly all the land within say 100 miles of New York has been converted into market gardens, dairy farms, or is used to supply vegetables, etc., for summer boarders. The fact is rapidly dawning upon the minds of the owners and occupants of land in the eastern and middle states, that they can no longer compete with the grain producers of the West. Their land, in the first place, is too valuable. No one can afford to raise corn or wheat on land worth \$500 per acre. The fact that the question, "Does farming pay?" is raised chiefly in the East is evidence not that farming, or more properly speaking gardening, does not pay, but that old methods do not pay. Agriculture is no longer the proper word to use for the culture of the lands of the eastern and middle states. Old-fashioned farming in the territory named is but a relic of a past age. The proper word for modern intensive farming is "gardening." The products of the suburban lands in the sections named are essentially garden products. Potatoes, turnips, cabbages, cauliflower, asparagus, etc., were formerly raised exclusively in the garden patch, and were always auxiliary to the main crops, such as wheat, corn, oats, etc. The average tiller of the soil in the East is no longer a farmer, but a gardener.—American Gardening.

HORTICULTURAL NOTES.

E. P. Lowell, referring to the new things of 1897, in the N. Y. Tribune, says: Of new grapes I know of but one that is certain to be of great advantage to us. This is Campbell's Early, a large, black, early grape; a good cropper, and having no qualities yet developed which make it probable that it will be unworthy of very general culture. It is at least as early as Early Victor, if not quite as early as Champion.

The Wall Street Daily News said in a recent issue: The apple crop of the year 1896, on this continent, was by far the greatest ever known. It is now estimated to have amounted to 70,000,000 barrels. The apple crop of the year 1897 will be, it is said, about one-third as large as that of last year. It is now estimated at about 20,000,000 barrels. This, however, is more than an average crop.

The 43d annual meeting of the Western New York Horticultural Society will be held in the city of Rochester, commencing Wednesday, January 26th. All interested in fruit culture, horticulture or rural improvement, are cordially invited to attend. The program prepared for the occasion embraces about every department of horticultural work, and the various topics have been assigned to competent and experienced men.

The Poultry Yard.

For The Michigan Farmer.
WINTER VENTILATION IN THE POULTRY HOUSE.

Of all the important and perplexing questions that confront the practical poultry breeder, the problem of ventilation is the toughest. Ventilation by shafts, by tubes, or pipes from below, passing out the impure air over the birds' heads, has been tried and found wanting. If one stayed on guard in the poultry house through the night possibly one might manage some of the patent affairs in such a way that no draft of air struck the birds, even if the wind changed quarter. Some of the most experienced poultry men are advocating no winter ventilation whatever. Of course perfect cleanliness and few birds in the pen must be a part of the plan. The average poultry house, if the owner makes as many trips per day as does your humble servant, opening and shutting doors, letting in the pure oxygen at every turn, can easily dispense with ventilators; but many of us are compelled to crowd our fowls somewhat for the early winter months, and what shall we do? The coops are built tight, for frozen combs hurt the sale of fancy cockerels. My main poultry house has eight divisions, four above and four below. In the first

two divisions I put the cockerels' roosts above, and scratch pens below; floor space, 10x10 feet in each apartment. Then when as I open the outside doors the air feels warm and damp, I drive the fowls to the center divisions, doubling up the flocks, 20 cockerels in one pen with scratch pens below, and the same with the two pens of pullets at the other end of the house. I have then an empty apartment with outside door at each end of the poultry house. This I open up, both doors and windows, for an hour or two if the weather is pleasant, then change the birds to the ventilated rooms and open the windows in the center rooms until all is fresh and sweet. If at any time during the day I find moisture on the window panes I repeat the process with the rooms at either extremity, and if I sleep late in the morning, and I find steam on the glass, I ventilate at once, for diphtheritic microbes only exist in damp air, and croup also flourishes in dampness.

Sometimes, before I learned better by a sad experience, I sent the help to empty the water dishes, but soon found out that they were emptied on the floor, and so I attend to that matter myself at present. If extreme cold weather prevails, I keep lanterns burning until the frost is cleared from the windows, and if long continued one lantern will not come amiss burning all the time, hung safely out of the reach of venturesome cockerels, by a stout wire from the ceiling. Hang as low as you can, for heat rises. If I had practiced this kind of ventilation many years ago, it would have been worth many dollars in my business.

I am thoroughly convinced from experience that this is the best way to ventilate a house of two or more rooms. At night I put canvas curtains at the windows, and if extremely cold, heavy blankets in front of the roosts; if the thermometer gets away down to the bottom, I light lanterns in every room. I learned this plan by various experiments, and I find it the best I ever tried. Whenever I can distinguish an unpleasant odor in the morning, I clean the coop, if it is every day, and take out some chickens to another room if that does not help the matter. Every week, and often twice per week, I clean thoroughly under the perches and add fresh litter.

C. P. Reynolds speaks of feeding ensilage. I am not so favored, but clover leaves scraped from the floor where the hay is thrown down, and boiled in water and thickened with middlings, make a good substitute, and are not too fattening. Too much grain produces many diseases, and how to avoid feeding it in the winter is a problem. Potatoes are too expensive this winter, but a number of over-grown cabbage heads have been eagerly devoured. I fasten them, head down, from the ceiling by a strong wire, and they furnish employment as well as feed. The tops of sugar cane with seeds have helped out for a change.

I avoid dampness in litter in every possible way, for I never knew a case of roup in a dry house.

PRISCILLA PLUM.

ARTIFICIAL INCUBATION.

In a bulletin on ducks and geese issued by the U. S. Department of Agriculture a couple of pages are devoted to the subject of artificial incubation, referring especially to the use of the incubator in hatching ducklings. The bulletin says:

The science of incubation and brooding has been developed wonderfully in this country during the last quarter of a century, and what seemed almost an impossibility there has indeed become a certainty now. There are many thousands of chicks and ducklings hatched by artificial means each year, and the numbers of good machines now being manufactured in this country at low prices make poultry raising a business that almost anyone with a limited capital may profitably engage in. The mission of an incubator is to supplant the sitting hen, and make it possible to hatch a large number of chicks at a minimum amount of cost and labor. That this can be done is proved each day.

For artificial incubation, have a room with a temperature as nearly uniform as possible. Balance the heat in the machines, or in other words, see that the heat is uniform at both ends, and, in fact, all over them. See that each is running steadily before placing the eggs in it, as there is a great deal in starting right. The machines should be run at a temperature of 102 deg. for the first three weeks, and 103 deg.

the last week. The eggs should be turned twice each day at regular periods. Introduce a pan of water from the fifteenth to the twenty-second day, no matter what the location of the machine, whether in a damp cellar or in a dry one at an altitude in the country. The temperature may go as high as 104 deg. just previous to and while hatching without injury. Place the glass on a live egg after the animal heat rises, which will be when the circulation begins. This will be perceptible in good eggs the fourteenth and fifteenth days.

Considerable weight has been put upon the ventilation question in incubators by manufacturers and operators, but it has been found that when the egg chamber is roomy, and the eggs are taken out and cooled twice each day, it is not of so much consequence. There is no doubt but that there must be some ventilation in the egg chamber, but from the experience and observation of the writer the value of the subject has been overestimated by many. Some machines have top ventilation, some bottom, and others both top and bottom, and there is seemingly no marked difference in the hatching.

When the ducklings are hatching, the broken egg shells should be removed once in every six or eight hours, so that they will not slip over the pipped eggs, as it would be sure death to the imprisoned ones. Occasionally a little bird is unable to free itself from the shell and needs help; the expert can readily detect when this is necessary. The one point to note in this connection is this: The egg just before hatching radiates a great deal of heat, while the duckling, when first out, being not unlike a little sponge, absorbs it, or in other words, the rapid evaporation which takes place generates cold; so that when the ducklings are out the machine should be gauged one degree higher.

When the ducklings are all out and dried off, the machine will run at least two degrees lower than when they were in the egg. Plenty of ventilation is needed in the machines while hatching. Keep the ducklings in the machine at least twenty-four hours after hatching, when they will be strong enough to be removed to the brooder. The heat in the brooder should be started twenty-four hours previous to use, so that it will be perfectly heated and ready for the ducklings when they are taken from the machine.

POULTRY NOTES.

A correspondent at Tekonsha, J. P., writes: "I have a poultry house that has at present an earth floor of sand which works up and gets filthy; besides I cannot have a good place in winter for fowls to scratch in. I wish to improve the present floor, or replace it by some other kind. I would like to hear from prominent poultrymen in regard to what is the best kind of floor for a poultry-house. Would like to hear through the poultry department of The Farmer."

A writer on poultry topics says: "One of the results of the brooder is that the chicks feather very rapidly, and pullets mature much more rapidly than when cared for by the hens and allowed to run at large. They have been known to begin laying when but four months old and hardly large enough to go to market." Such statements, if relied on, will surely result in disappointment. Chickens may have laid at four months old, and may again, but anyone who bases his calculations upon their doing so will get badly disappointed, whether they were hatched in an incubator or under a hen.

A New Egg Producer.

With many years of experience I have discovered that by feeding sunflower seed to poultry it almost doubled their laying qualities. I prefer the New Mammoth Russian sunflower seed, which is a much larger seed, and contains more egg forming material than the common sunflower. For several years I have experimented with it on our Light Brahmas, and found that by feeding it the Brahmas laid equally as well as the Leghorns or any of the other smaller breeds. It can be grown much more cheaply than any other grain, with much less labor; and it will grow in any climate and on any soil. The fanciers and farmers should not overlook this or anything else pertaining to their poultry, as they bring more money according to capital invested than anything else on the farm. If your poultry is kept up well, new blood added each year, the mites and hen lice kept out, fowls better protected from sudden changes of weather, and more care taken as to what you feed them, you will find on a year's income your poultry is the best payer on the farm; while it is just the opposite with most farmers, giving them no care whatever, letting them hunt whatever waste food they can find and hunt their own shelter, saying it won't pay to build a poultry house or get any new blood as there is not enough money in poultry. Sure, not under such conditions, as such fowls will not lay many eggs nor weigh much when sold at market. Take my advice and try it for just one year, keeping an account of what you make on your poultry if proper care is given. We publish a book, price 15 cents, on the care and management of poultry in full, with many years of practical experience. Do not fail to get one of these before they are all gone. JOHN BAUSCHER, JR., Box 46, Freeport, Ill.

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POULTRY PAPER, illus'd, 20 pages, 25 cents, per year. 4 months trial 10 cts. Sample Free. 64-page practical poultry book free to yearly subscribers. Book alone 10 cts. Catalogue of poultry books free. Poultry Advocate, Syracuse, N.Y.

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FIRST PRIZE WINNERS. Our 1898 Mammoth Poultry Guide No. 2 will be mailed FREE. Something entirely new, tells all about poultry, how to be a winner, how to MAKE BIG MONEY. Contains beautiful lithograph plate of fowls in their natural colors. Send stamp for JOHN BAUSCHER, JR., Box 46, Freeport, Ill.

Hens Make Money. Under proper conditions. These conditions are defined in our MAMMOTH NEW POULTRY BOOK and CATALOGUE for 1898. Bigger & better than ever before. Prints in colors, cuts and descriptions of all leading breeds of fowls; poultry house plans, tested remedies, prices on poultry, eggs, etc. Worth \$5, but sent postpaid for 15 cents in stamps or cash. The J. W. Miller Co., Box 157, Freeport, Ill.

A SURE WINNER.

OUR SUCCESSFUL INCUBATOR will prove it if you use it. Send 6c for new 128 page catalog and study the merits of our machines. Has valuable points on artificial incubation and poultry culture generally. We manufacture a greater variety of Incubators and Brooders than any other firm. Sizes 60 to 800. Prices from \$8.00 to \$70.00. DES MOINES INCUB. CO., Box 85 DES MOINES, IOWA.

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News from Michigan Granges is especially solicited.

JUVENILE GRANGES.

A little while ago we asked "W. R.," correspondent of Ottawa Grange, to tell us something more about their Juvenile Grange, and the following is his response:

"The Juvenile Grange is under the charge of a matron, from the Subordinate Grange, selected by the Juveniles. Their officers are similar to those of the Subordinate Grange, and are elected semi-annually. The lecturer gives them plenty of work by way of questions to discuss, recitations, music, etc., and the amount of interest they display in it is surprising.

"The objects of the Juvenile Grange are to educate the children to be able to speak in public with greater ease; to instill the Grange principles into their minds, so that when they become of proper age they will assist in the Subordinate Grange; to relieve the parents of the necessity of either leaving the children at home alone or of staying there with them; and to give them a place of amusement that is both pure and wholesome.

"I would say to Granges that have a place where they can hold the meetings, organize a Juvenile Grange by all means."

This subject of Juvenile Granges has been agitated more or less, but without any great results. There are some serious problems connected with making a Juvenile Grange a success, but the theory of the plan is most admirable. The great lack in the Grange of recent years has been the lack of well trained young men and women who would go to the Grange not only for pleasure, but for profit. And there can be no question but if our young Patrons were trained in a Juvenile Grange many of them would be more earnest in Subordinate Grange work. We should like to hear from several Patrons on this subject, and especially from those who have had any experience with Juvenile Granges. We should like to know of several being started this winter.

A QUEER MIXTURE.

Not long ago, in the columns of a daily paper opposed to civil service reform, there was a dispatch from Washington which contained an odd mixture of fact and opinion. We quote a few sentences from the dispatch:

"The postoffice contest at Jackson was brought to a close on the last day of 1897."

"The little village of Oxford, Oakland county, with its 1,200 people, is passing through a bitter contest over the question of who shall be custodian of Uncle Sam's stamps there."

"A bitter contest is being waged over the succession to the Allegan postoffice, which is causing Congressman Hamilton no little worry."

Here is the humorous climax:
"It is expected that the civil service 'bubble' will be easily punctured this week in the House."

True, postoffices are not yet under civil service, but these bitter contests, even allowing for the exaggeration of news gatherers, are simply samples of the whole spoils system which the civil service "bubble" is designed to do away with. The practice of civil service reform is not perfect—there are chances for improvement, but the principle is eminently correct. It is fortunate and significant, that the enemies of civil service reform were not able to accomplish anything serious toward the destruction of the reform, as a result of the debate above referred to. They did a heap of talking, and probably some modifications will be made, but that is all.

A significant interview with Auditor-General Dix was recently published in the State Republican. After stating that a year ago the work of the department was considerably behind, but was now up to date, and emphasizing the disadvantages of doing such work with a corps of inexperienced assistants, he said:

"I had more or less experience in public affairs before assuming my present duties, but no previous experience can be compared to that of the past year. Here is a department that it is

impossible, in my judgment, to properly administer without the aid of an experienced staff."

"Perhaps you would disagree with some of our friends at Washington who are attacking the civil service law?"

"Well, I do not know as to that, but I am certainly in favor of a practical civil service that will retain a sufficient number of assistants who have enough of experience and knowledge of the business of the department to enable every administration to give the public the best service. No man could be auditor-general a year without favoring civil service to this extent, I am certain."

This testimony is worth considering. We have ourselves had interviews with several men in the State Capitol during the past few years, who understood the inside workings of the departments, and every one of them agreed that some form of employment for merit, and for that alone, should prevail in our State Capitol. One business man in Lansing said to the editor of this department one time that he would be safe in giving bonds for \$500,000, to perform all the business portion of the work done in the Capitol building at Lansing for two-thirds its present cost. We believe that this is not a reflection upon the heads of departments, so much as a merited reflection upon the system of appointment which prevails.

GRANGE NEWS.

GRATTAN GRANGE, No. 170, had a small meeting Jan. 27. Four members given fourth degree.

Kent Co. C. D. R.
ALAIEDON GRANGE, No. 289, elected as master, D. C. Peabody; secretary, W. A. Olds; lecturer, M. E. Hedger.

Ingham Co. M. E. H.
SILVER LAKE GRANGE, No. 624, installed officers Jan. 15. Three reinstated members. The outlook is encouraging.

Grand Traverse Co. RUTH DAVIS.
PLEASANTON GRANGE, No. 557, A large class is now going through the Grange, and Jan. 12, seven took the fourth degree. There are others to follow.

Manistee Co. IVY M. SHELTON.
WEST HANDY GRANGE, No. 613, installed officers Jan. 15. Master is George Marsh; overseer, George Allen; lecturer, Birdie Abbott. Installation followed by a feast. Eight new names received for membership.

Livingston Co. HELEN CHENEY.
LEONIDAS GRANGE, received a report Jan. 15, from Bro. Dell, delegate to State Grange. We are making an effort to get Worthy Master Horton into our county for special work.

St. Joseph Co. C. P. MONFORT.
BANNER GRANGE, No. 640.

The Patrons of Banner Grange are having a series of entertainments, the first being a lecture by Hon. Washington Gardner; subject, "Ninety-ninth of the Nineteenth Century."

Ionia Co. COR.
ASH CENTER GRANGE, No. 471, have their hall finished, and will dedicate it Feb. 1, in the afternoon. Worthy Master George B. Horton, of the State Grange, will be dedicating officer. Everyone is invited to attend.

Monroe Co. E. H. PARISH.
DANBY GRANGE, No. 185, installed officers Jan. 12. The ceremony was performed by Bro. Waterbury, of Ronald Grange, who also reported State Grange. Four applications for membership. Our purchasing agent was instructed to secure a traveling library.

Ionia Co. T. C. PRYER.
GANGES GRANGE, No. 339, elected as officers: Master, F. H. Robinson; overseer, S. S. Waldo; secretary, M. S. Bennett; lecturer, Mrs. A. H. Tracy. Initiated four candidates. We meet the first and third Tuesdays in each month, in the afternoon.

Allegan Co. F. H. ROBINSON.
LIME CREEK GRANGE, No. 712.

Installation was postponed two weeks from Jan. 14. The directors of the Patron's Fire Insurance Company made a short report of the meeting at Adrian. As yet, few of our members have taken out policies.

Lenawee Co. COR.
BURR OAK GRANGE, No. 303, mourns the death of Sister Rebecca Wait. She was one of our strongest workers, and her death means a great loss to the Grange. The Grange passed appropriate resolutions in her memory.

St. Joseph Co. COM.
FRUIT RIDGE GRANGE, No. 276, has \$225 in its treasury, besides a fund of about \$100 in the treasury of the Dramatic Club. Bro. Jesse Tuttle was

appointed our agent for the Lamb Fence Company. A class of thirteen is going through.

Lenawee Co. J. W. A.
BUEL CENTER GRANGE, No. 714, entered the New Year in good trim, and, although young, is gaining members fast. It has as master, I. W. Hale; overseer, W. O. Coleman; lecturer, H. H. Robb; secretary, J. E. Dimon. We decided to have a traveling library. Also to send for more "Grange melodies."

Sanilac Co. MAMIE COLEMAN.

MACON GRANGE was re-organized Dec. 29. Bro. Horton installed the officers. The charter contains fifty-seven members. We have a good hall; the lower room to be used for public purposes, the upper one for the Grange. Our master is J. E. Baker; overseer, Martin Frayer; lecturer, Mrs. A. Russell; secretary, F. Gilmore.

Lenawee Co. MRS. A. RUSSELL.

ASHLAND GRANGE, No. 548, had a feast Jan. 15. The subject for discussion was "Free seed distribution." Our experience is that the seeds are generally of low vitality and poor quality, and it is pure foolishness in the government to furnish those seeds.

Newaygo Co. A. L. RICH.

FREMONT GRANGE, No. 453, elected as master, C. Kimbell; overseer, Mrs. H. E. Fowler; lecturer, Mrs. Mate Stuart; secretary, Mrs. Belle White. They were installed January 22, by Bro. Waters, delegate to State Grange. At our last social at Grange hall, the proceeds was \$10.

Newaygo Co. MRS. P. W. HALL.

HUDSON CENTER GRANGE, No. 713, W. H. Knox, of Mendon Grange, installed our officers Jan. 14. Also reported from State Grange. Refreshments were served. Last year we had twenty-six regular meetings and twelve socials, and Jan. 1, had forty-five members in good standing, a gain of nineteen during the year. Cash in treasury, \$44.

Lenawee Co. H. C. V.

WHEATLAND GRANGE, No. 273, Bro. N. I. Moore installed our officers January 14, and gave an interesting report of State Grange, to which he was delegate. Our principal officers for the year are: Master, B. S. Lamb; lecturer, Alice Pease; secretary, Lydia Clarke.

Hillsdale Co. COR.

PENNFIELD GRANGE, No. 85, elected as officers: Master, Frank Garrett; overseer, E. Brown; lecturer, Mrs. J. M. Willison; secretary, Mrs. Loretta Poorman. January 7, after a bountiful Grange dinner, an open installation of officers was held, together with a short program. Pomona Grange met with us Jan. 13, and installed its officers.

Calhoun Co. MRS. E. J. SMITH.

SILVER LAKE GRANGE, No. 723, was organized eight months ago with sixty charter members. Officers installed are: Master, J. G. Berry; overseer, G. W. Kutte; lecturer, Mrs. Martha Berry; secretary, L. G. Ray. Installation was followed by oyster supper. Ten applications received last meeting. Feb. 5 Union Grange meets with us.

Kent Co. RESSIE LYTLE.

SPARTA GRANGE, No. 340, meets the first and third Saturday, in the afternoon, of each month. Jan. 15 the following officers were installed: Master, E. S. Dart; overseer, T. Whitte; lecturer, Mrs. B. J. Zudzenze. Mrs. Saunders, of Courtland Grange, gave us one of the best reports of the State Grange session ever listened to in our hall. Four members have recently been reinstated.

Kent Co. MRS. JENNIE DART.

ALBA GRANGE, No. 716, At our last meeting, January 18, five candidates started degrees, and two new names received. Officers were installed by Bro. and Sister Olds, after which Bro. Olds read an interesting report from State Grange. Four members from Stebbins Grange were present. More interest is manifested in Grange work.

Antrim Co. COR.

MONTOUR GRANGE, No. 49, Our officers are: Master, H. E. Taylor; overseer, W. Milliman; lecturer, C. Adams; secretary, Ella Rogers. We have a membership of fifty-eight in good standing. January 15 conferred fourth degree on four members. Also installed officers, and had a dinner and general good time. We own our own hall and are self-supporting.

Kalamazoo Co. COR.

HAMILTON GRANGE, No. 355, is flourishing. One hundred and forty members in good standing, and twenty-six initiated during the year. We have not missed a meeting during the year, and the attendance was about seventy per meeting. Special

programs were given on Michigan day, Washington's birthday, May day, Emancipation day, and Christmas. At our next meeting we shall discuss "Facts and Figures relating to our various State Institutions."

Van Buren Co. CHARLES WAGNER.

WHITNEY GRANGE, No. 513, installed officers Jan. 14, with open meeting. Many visitors expressed their intention of joining, and the names of several former members were sent in for reinstatement. We now have our second case of books from the traveling library. Our master is C. M. Pierce; overseer, J. Spears; lecturer, Mrs. L. H. Donaldson; secretary, Nellie Willets.

Tuscola Co. COR.

ALUMINA GRANGE, No. 585, installed officers Jan. 15, as follows: Master, A. M. Viets; overseer, D. C. Freeman; lecturer, O. F. Marvin; secretary, Luella A. Crawford. Bro. and Sister Thompson reported in an interesting way the State Grange meeting. We all heartily endorse the address of Worthy Master Horton at State Grange. Bro. M. Thompson was appointed agent for the Lamb Wire Fence Co.

Muskegon Co. V. M. A.

OXFORD GRANGE installed officers Jan. 15. Afterwards a discussion in regard to county institute details was taken up. Our custom of furnishing entertainment to those who come from a distance found advocates and opponents; the chief objection seems to be that those who entertain are prevented from getting the full benefit of the institute. I believe that a discussion of this question in localities where institutes are held this winter would prove an interesting subject.

Oakland Co. COR.

EATON POMONA GRANGE met with Charlotte Grange January 19, had a Grange rally. The officers of Pomona were installed in the forenoon by Bro. C. W. Moore, of Vermontville Grange. After dinner the Grange had an open meeting and it was declared by all who were present to have been the best meeting held in the county for several years. Much enthusiasm was manifested by the officers. Our master is C. C. Hallenbeck; lecturer, N. P. Hull; treasurer, the veteran Bro. J. F. Terrill; secretary, C. Hoffner.

CHARLES HOFFNER.

DEWITT GRANGE, No. 456, Our officers for 1898 are as follows: Master, Luther Sibley; overseer, Frank Huffman; lecturer, Mrs. C. L. Pearce; secretary, Jerome Dills. Installation January 8, 1898, followed by an oyster supper.

Our Grange is having a contest which began January 1.

Two weeks ago fourteen applications for membership were received. Four old members reinstated, Saturday evening, January 22; fifteen applications were received and three reinstatements.

MRS. C. L. PEARCE, Lecturer.

Clinton Co.

WATSON GRANGE, Bro. and Sister Value, assisted by Bro. and Sister L. C. Root, installed officers of Watson Grange, Jan. 13. Bro. Value reported State Grange. We had an open meeting, the children assisting in rendering the program. Sister J. C. Leggett read a descriptive poem describing the history of Watson Grange for the past twenty-four years. Bro. Root spoke cheering words for Grange work. He also described the traveling library system.

Allegan Co. S. P. ALBERTSON.

BAINBRIDGE GRANGE, No. 80, initiated four members Jan. 15. Thirty of our members attended Pomona at Berrien Center the same week, and five took fifth degree. We claim to be the banner Grange of the county, and always have large attendance. Our master appoints at each meeting an "attendant" to care for the children who have not reached the proper age to be admitted during business hours, then the children come into the hall and listen to the program. Thus the parents and children can all come.

Berrien Co. MRS. E. STICKNEY.

CAPITOL GRANGE, No. 540, January 12, had a social at the home of Bro. Ben Smith. Having secured such gratifying results from our former contest, we have decided to hold another, but on a different plan. The Grange is divided into four sections, according to the direction in which they live from the Grange hall, northeast, northwest, southeast and southwest. Each quarter is to give one program for one evening during February, and also to secure as many names for membership as possible. Judges will be appointed and decide upon the

merits of the programs, and the counts for them, added to the counts for membership, will win the contest.

Ingham Co. COR.

OGDEN GRANGE, NO. 660.

We were organized May 6, 1896, in a schoolhouse. The next fall we began plans for building a hall, which is now completed, and is a building 26x54 feet, and 20 feet high. We have seventy members. Bro. Horton donated curtains for all the windows. The officers for present year are: Master, S. C. Fairbanks; overseer, J. W. Sell; lecturer, Mrs. Bertha Sell; secretary, W. D. Sell. After public installation, Jan. 14, performed by W. S. Watring, we had a box social, from which we realized about \$8. Our regular meeting is on the second and fourth Tuesday evening of each month.

Lenawee Co. J. W. SELL.

HESPERIA GRANGE, NO. 495.

met Jan. 15, under the leadership of the new officers: Master, Walter McGill; secretary, A. Phelps. We are free of debt and prosperous. Are planning to furnish refreshments for the large audience which will attend the Patrons and Teachers' Institute, Feb. 10-13, inclusive. This is one of our large events. This year, among other lecturers will be Rev. Morgan Wood, Hon. J. H. Brigham, Dr. Arnold Thompkins, of Illinois, Prof. Ferris, of Big Rapids. The schools of Oceana and Newaygo counties will be closed, and most of the teachers will be present.

Hesperia Grange also discussed the subject of Patrons' Fire Insurance companies.

Newaygo Co. COR.

PORTLAND GRANGE, No. 174.

has been somewhat inactive lately, but with the new year we resolved to inaugurate an aggressive campaign for the upbuilding of the Order in this locality. At our meeting Jan. 21, a class of eleven was initiated, while another and larger class is ready to join. Some former members of years ago have returned to take up the work with us. Our regular meetings occur twice a month, but we have special meetings for conferring degrees, etc. New applications are presented at every meeting, and there seems to be a general awakening along the lines of Grange work. Our prospects are better than in many years.

Ionia Co. GEO. W. PEAK.

IRONTON GRANGE, NO. 707.

Past Master O. H. Hammond installed our officers Jan. 7. Our women's work committee brought up for discussion the subject "What constitutes an ideal young woman?" Also sold pop corn and apples to purchase vases for the desks of our lady officers. We meet in a large school house, and do not feel the need of a hall so long as we can have the present pleasant quarters. We are greatly encouraged with our prospects. Pomona Grange met with us the 13th and 14th of January, and elected officers. Master, O. H. Hammond; secretary, H. Wilson; lecturer, Mrs. Clara Gregory. Pomona officers were installed, and some thirteen or fourteen new Pomona members initiated. Our next Pomona Grange is with Peninsular Grange, No. 663, April 7 and 8.

Charlevoix Co. MRS. H. C. ALLEN.

MADISON GRANGE.

January 18, A. B. Graham made remarks favoring rural free mail delivery, and called attention to the resistance of the pure food laws in Detroit, by grocers and oleo men, and the work of the pure food commissioner.

Mrs. Mary C. (Allis) Beal recited "Money Musk."

Mr. Frank B. Crane was appointed agent for the Lamb Wire Fence. Mr. Crane is centrally located and is known as a careful workman in whatever he undertakes.

A contest on attendance and new members is to begin at our next meeting, and last six months. Object, ice cream.

It was voted to invite the county commissioner of schools to hold an institute at Madison Grange hall in the near future.

The Grange subscribed for the Grange Bulletin, to be sent to the lecturer, Mrs. H. Harwood, in addition to The Farmer.

Lenawee Co. E. W. ALLIS.

BRADLEY GRANGE, NO. 669.

postponed their installation Jan. 15, and attended the installation at Hopkins Grange. At their last meeting they had a short discussion on "Are the railroads taxed according to other property?" and "Who is benefited by the bounty on sugar?"

Allegan Co. COR.
(Right here we wish to make a suggestion, and do not want this correspondent to feel offended because we have selected this bit of news as the

text for our sermon. We wish to emphasize the importance of giving an idea of the conclusions of a discussion, or at least of the chief opinions brought out. For instance, it is of no particular interest for Patrons of the state to know that this Grange discussed the subject of railroad taxation, but if we could have, in four or five lines, the briefest kind of statement of what the prevailing opinion seemed to be on this subject, it would have been of much more value. The same is true of the other question; the item of news that interests us is not that Bradley Grange discussed the question, "Who is benefited by the bounty on sugar?" but who the majority of members of Bradley Grange think is benefited by the bounty on sugar. And if most of Bradley Grange thinks that the railroads are not taxed according to other property, are there not some members who think that the agitation is not necessary? The whole point is, Worthy Patrons, that in this Grange news we want to get as much as possible of the opinions and conclusions of our members. We do not want to know what a Grange is discussing, and what it is doing, but the things of vital importance are the new plans; the new suggestions; and especially the results of our discussions, boiled down to the lowest possible limit.

Now we hope that, as said before, this correspondent will not take offence at this little sermon right here, because many of our reports would be subject to the same comment.—Ed.)

KENT POMONA PROGRAM.

A special meeting of the Kent county Pomona Grange will be held with South Lowell Grange on Wednesday and Thursday, February 2 and 3. It has been a long time since our Pomona has met with South Lowell, and it is the desire to make this meeting one of the best, not alone of fifth degree members, but of fourth as well. The following program will be carried out:

Wednesday afternoon session will be an open meeting, beginning at 1 o'clock sharp. Let all, whether Patrons or not, attend this meeting.

"Greetings," from Bro. J. H. Martin, master of Pomona Grange, followed by master of South Lowell Grange.

"What can the Grange do to aid our rural schools?" H. C. Denison, Fred Aldrich and Sister R. A. Denise; music, M. H. Foster and wife; recitation, "Sister Mertie Preston; a paper upon "Current Events, and what they signify," by Bro. Wesley Johnson; "How can the roads in this section be improved without greatly increasing the rate of taxation?" Bros. Jno. Preston, J. W. Brass, W. B. Croninger; recitation, "Lillie Tripp; music, Bell Scott; "The trials of a farmer's wife," Sisters John Preston, S. C. Petterson, I. D. Davis; select reading by Sister M. T. Denise; music, Sister D. C. Blood; "What is meant by balanced rations for dairy stock?" Bros. Rufus Benton, Charles Butterick, A. T. Dean; recitation by Arthur Clark; "Is the Grange fulfilling its mission and meeting the demands of the times?" Bros. J. H. Martin, Frank Saunders, Sisters H. C. Denison, D. M. Skidmore.

We hope to have a class that will receive the fifth degree on Wednesday evening. Remember and bring your lunch baskets well filled for Wednesday's dinner.

MRS. FRANK SAUNDERS, Lecturer.

BROTHER BRIGHAM AT STATE GRANGE.

In our report of State Grange we promised an abstract of Bro. Brigham's address before that body. Bro. Brigham spoke in substance as follows:

I am very glad to meet you in annual session. The organization in this beautiful Peninsula State is a power. I do not think it necessary for me to consume time in making an argument to show the importance of organization. Your presence here today, and the earnestness which I see in your faces indicate that you are fully alive to the necessity of organization.

Perhaps I had better speak more particularly upon this occasion of what the Department of Agriculture will attempt to do for the farmers. You know this department is a child of the Grange. It was owing to our efforts, continued through a series of years, that the Department was created. We have at last, I am happy to say, at the head of the Department men who are in thorough sympathy with the agricultural interests, and will try to make the Department of great assistance to the farmers. We shall attempt to procure a better sys-

tem of crop reporting, gathering statistics from our own and other countries, compiling the same and sending them out to the farmers before they sell their crops, and in time to advise them of the probable prices that will be paid for the same.

We realize the fact that in some lines the farmers are producing at a loss. It has been demonstrated beyond all question that the law of supply and demand regulates prices. An unusual increase in production without a corresponding increase in the demand for the same will inevitably result in very low prices for the product. In order to avoid over-production and extremely low prices, the Department will encourage diversification of crops. With this in view we have sent out beet seed for the purpose of testing the growing of beets in the various sections of the country. We are fully convinced that we can produce all the sugar needed by our people. The results of our experiment seem to have settled this matter beyond all question, and I predict that within less than 10 years the United States of America will supply their people with home-produced sugar.

We can also produce beyond question, some of the other agricultural products that we now buy from foreign countries. The Department is making an effort to extend our markets abroad. Dairy products have been shipped abroad for trial, with very favorable results, and we have no doubt whatever that extensive markets can be developed for our surplus.

We shall improve our inspection service so that there can be no legitimate reason advanced for shutting out our meats from foreign countries. We shall also try to produce new and valuable varieties of seed which, when thoroughly tested by our experimental stations and some of our practical farmers, if they prove valuable, will be sent out to the farmers. We shall also encourage the improvement of live stock, so as to meet the foreign demand for the same. There is a good market for certain styles of horses in foreign countries which we should try to supply. The Department will also try to secure the enforcement of the laws prohibiting the sale of adulterated and impure products. We shall also try to secure other legislation, if needed, for the protection of honest producers and consumers; in fact, it will be the aim of the Department in every possible way to contribute to the advancement of the agricultural interests and the elevation of the great industry to which we belong.

As your time is precious I will not detain you with any extended remarks, but will close by inviting you to make any suggestions to our Department and call upon us for any assistance we can afford you. We shall be glad to see you whenever you can find time to visit the capital of the nation, and see for yourselves the work that is being done by the Department. You will be cordially welcomed, and your stay made as pleasant as possible. Thank you for your attention.

FINANCES OF THE NATIONAL GRANGE.

SOLID AS A ROCK.

A brief review of the financial history and policy of the National Grange for the past twelve years may be of interest to the members of the Order.

The report of the treasurer of the National Grange to the Nineteenth Session shows the financial condition at that time to be as follows:

Invested in United States bonds, \$38,000 00
Trust fund deposited with fiscal agency 5,379 22

Total \$43,379 22

As the Government bonds drew 6 per cent annual interest, they commanded a premium in the market which was growing less, year by year, as the time diminished for their maturity; and the National Grange ordered the executive committee to sell the same, and invest the avails in first-class mortgage bonds or other reliable securities. The instructions were obeyed and the \$38,000 of bonds brought \$50,937.50; \$9,655 of which was for premium. Of that amount the committee loaned \$42,300, taking notes secured by first mortgages on good farms, drawing 6 per cent annual interest, running five years. The farms at the time were estimated to be worth in cash not less than double the amount of the loan. With the sale of the bonds the policy was inaugurated to use a portion of the proceeds in extending the Order, and for the two following years large appropria-

tions were made for that purpose; and was expended principally in lecture work in the States where the condition of the Order seemed to demand it. The report of the executive committee to the 22d session (1888), contains the following:

"It will be seen that our permanent investments amount to \$42,000, which is \$8,887.50 less than the amount realized from the sale of our Government bonds in 1886; and the available fund now on hand is \$8,742.80, against \$12,179.07 for the corresponding date of 1887. It is quite probable that this fund will be increased by the receipts since October 1, yet it is clearly to be seen that our expenditures have largely exceeded our income during the past two years; and that the fund set apart from the sale of bonds, in extending the Order, has been nearly exhausted. The committee therefore recommend that no appropriations be made, or liabilities incurred which will trench upon our permanent investments, and that for the future the expenditures of the National Grange should be kept within its income."

The committee's report to the 23d session (1889), contains the following:

"The committee are unanimous in the opinion that our real estate investments should not be hypothecated or disturbed, except to reinvest the funds when due and paid, and guard against loss from the shrinkage of real estate values now taking place, and that the expenses of the National Grange should be kept within the receipts."

These recommendations were concurred in by the National Grange, and the following summary of annual statements will clearly indicate that the policy has been strictly adhered to.

The funds of the National Grange on the first day of October in each of the following years were as follows:

1890	\$50,809 50
1891	51,961 72
1892	50,832 73
1893	52,429 83
1894	50,494 82
1895	51,068 69
1896	51,430 68
1897	52,313 42

But one year, 1894, did the receipts fail to meet the current expenses, and the aggregate increase of funds for the seven years has been \$1,503.92, or an annual increase of \$214.84. While this is not a large gain, yet, taken in connection with the fact, that more than \$2,000 has been expended annually in extending the Order, it certainly shows a sound financial condition of the National Grange, which must be gratifying to the members of the Order. It will, however, be clearly seen that the expenditures cannot safely be increased until the receipts will justify such action. The committee recommends that the same economy that has characterized the action of the National Grange during the past seven years be continued.—From report of Executive Committee of National Grange.

(Farmers thinking of forming farmers' organizations should consider the above carefully. Financial solidity means just as much in an organization as it does in private business.—Ed.)

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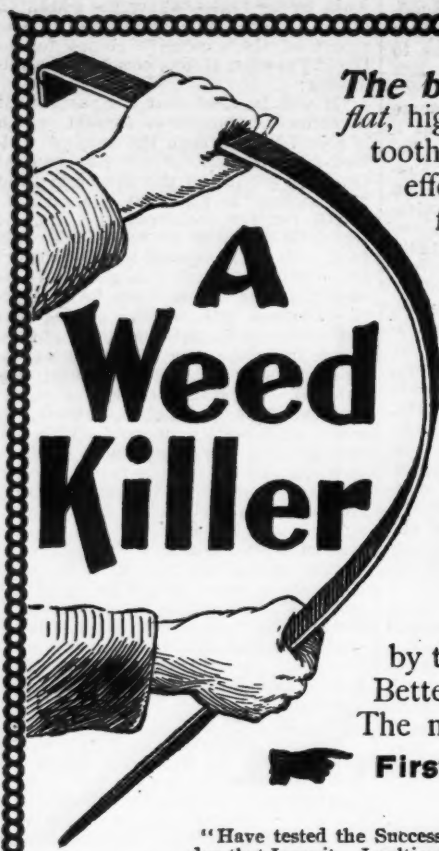
EAST VIA PORT HURON			Arr.
Lvs.	St. Clemens, Pt. Huron & North		9:40 am
7:55 am	Toronto, Montreal & Portland		9:40 am
1:10 pm	St. Clemens, Pt. Huron & North		1:10 pm
	Montreal, New York, etc.		1:50 pm
4:20 pm	St. Clair, Romeo and Pt. Huron		4:20 pm
10:40 pm	Buffalo, Toronto and New York		6:45 am

EAST VIA WINDSOR			Arr.
12 noon	Toronto, Buffalo and New York		1:50 pm
6:40 pm	London and Int. Stations		9:30 pm
	London and Int. Stations		9:05 am

DETROIT AND MILWAUKEE DIVISION.

6:55 am	Saginaw, G. Haven & Milwaukee	9:25 pm
9:15 am	Pontiac and Int. stations	2:00 pm
11:30 am	G. Haven, Milwaukee & Chicago	3:55 pm
4:45 pm	Saginaw, Lansing & G. Haven	11:50 am
6:45 pm	Pontiac & Intermediate stations	8:10 pm
8:30 pm	Lansing, Battle Creek & Chicago	7:05 am
10:00 pm	Grand Rapids, Grand Haven	

†Daily except Sunday. *Daily. ‡Sunday only



The best weeder tooth is the one that's most flexible and springy. This flat, highly tempered steel tooth is about 100 per cent. more flexible than a round tooth. Helps to make the Success Anti-clog Weeder about 100 per cent. more effective than other weeders. The thirty-nine teeth are so arranged on the frame that weeds can't clog them. The only weeder that has flat teeth; the only one that can't clog. The only machine that will do as good and careful work as a hand hoe, and as much work as 20 hoes. Thousands of farmers used it last year; few farmers will be without

HALLOCK'S SUCCESS ANTI-CLOG WEEDER

by the end of this year. It kills the weeds and thoroughly works the ground. Better than a spring-tooth harrow for making the ground ready for planting. The most profitable tool for farmers to use or to sell.

First order from each town
secures special price and agency.

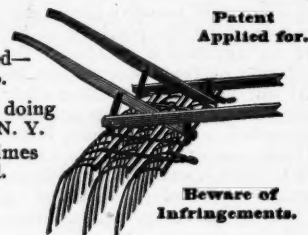
"Have tested the Success Anti-clog Weeder thoroughly. I consider it worth a dollar a day to me every day that I use it. I cultivated young corn with it and had no trouble in keeping the weeds eradicated on sixty acres of corn with one weeder. An excellent tool for potatoes and vegetables and for covering grass seed—Hungarian, crimson clover, millet, etc."

"The Success Anti-clog Weeders give grand satisfaction; everybody is delighted with them. Those that I sold are doing splendid work."

"Enclosed find money order for five more Success Weeders. I want this territory for '98. Think I can sell several times as many then as I did this year."

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EASY TO LOAD.
MADE TO LAST ALWAYS.

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Electric Steel Wheels

Wheels have any width of tire, from 2 to 8 inches; any height, from 24 to 30 inches. Impervious to heat or cold; can't dry out, get loose or rot; NO RESETTING TIRES and repairs. Best angle steel bounds. First class. All F. O. B. For \$25.00 brake \$4.00 extra. It has given universal satisfaction and will at your requests exactly. Don't buy until you get our FREE catalogue and prices. Write for them at once.

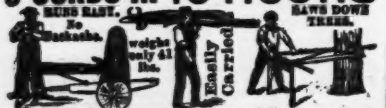
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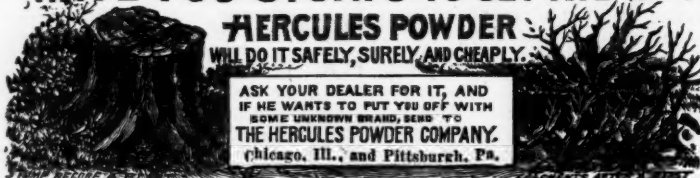


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IRON AGE

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Yours truly, S. B. ALLEN, M. D.

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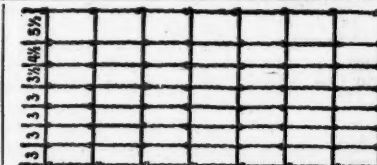
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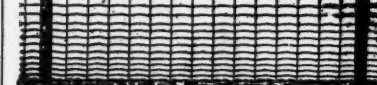
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